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JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
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MONTHLY LABOR REVIEW

Vol. 26, No. 5 May, 1928

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Issue in Brief

The cost of present-day medical service among persons of moderate incomes is developed in an inquiry made by the Bureau of Labor Statistics among its own personnel. The inquiry showed that the average annual expenditures per employee for medical services was $122.72, or 6.2 per cent of the average annual salary of $1,992.63. The average per capita expenditure for such services (i. e., the expenditures for the employee and his dependents) was $64.59. For the group receiving $3,000 or over per year the per capita expenditure was $86.65. On the assumption that members of this latter group were in a position to bear the expense of all the more necessary expenditures for health, it would appear that a family of four would require an annual expenditure of approximately $350 and a family of five of approximately $430 to take care of the more essential health requirements. Page 1.

Trade-unions quite generally recognize the value of recreational activity in the union as an aid in organization work, in developing a spirit of comradeship among the membership, and as an agency for the improvement of the health of members. Inquiry by the Bureau of Labor Statistics developed the fact that more or less extensive work along this line is being done by locals of 41 labor organizations. In most cases the international merely encourages the work but in a few outstanding instances the central organization has taken the initiative and is actively furthering such activities. General social events, indoor recreation of various sorts, and organized activity in all kinds of athletics and sports are undertaken by these labor groups. There are also a number of union-owned summer camps, and one international union operates an extensive year-round vacation resort. Even a union-owned general amusement park was found. Page 5.

A study of wages and hours of labor in the cotton-ginning industry, just completed by the Bureau of Labor Statistics, shows that during the pay-roll period covered average actual weekly wages were $18.94 and average actual hours per week were 64.5. The industry is seasonal, being carried on only during the period of the year when cotton is picked. The spread of operation may be as long as five months, starting in the late summer. As cotton is ginned on the day it is brought in, the hours of work may be long during the rush period and night shifts are sometimes operated. Page 111.

Accidents to window cleaners are much less frequent and less serious than has usually been supposed, according to an investigation just completed by the Bureau of Labor Statistics. The information obtained in the investigation was by no means complete, but seems sufficient to indicate that comparatively few window cleaners are killed at work. Twelve States reported only 14 fatalities in varying periods covering a three-year interval. Page 57.

A summary of the public-service retirement systems in 12 European countries shows that in Belgium, Great Britain, the Netherlands, and for higher officials in Germany the total cost is borne by the Government. In France, Italy, Germany (other than higher officials), Austria, Czechoslovakia, Switzerland, Denmark, Sweden, and Norway the employees and the Government share the cost in varying pro-

portions. The retirement age varies from 60 years in Austria, Great Britain, and France to 70 years in Denmark, Norway, and Switzerland, with special provisions in some countries for earlier retirement under certain conditions. The retirement allowances also vary, the full allowance in one country being as high as 78.3 per cent of the salary. Most of the systems also provide benefits for widows and orphans of employees. Page 21.

Average farm wage rates were somewhat lower at the beginning of 1928 than in 1927, according to figures published by the United States Department of Agriculture. The rate per month without board on January 1 was $46.75 as compared with $47.07 on January 1, 1927; the daily rate without board was $2.34 against $2.36 on January 1, 1927. Page 118.

High wage rates resulted in lower manufacturing costs for a manufacturing company because of the introduction of machinery and power on work formerly done by hand. This company's wage rates have more than doubled in the past 15 years and a representative of the firm believes that if wages were again doubled costs would be further reduced. Page 43.

A worker's inability to read the English language is an expense to his employer and a menace to himself. Large manufacturing concerns may have from 10 to 25 per cent of illiterate workers, and the number of such persons has been steadily growing in many manufacturing States. Page 47.

The displacement of hand labor by machinery continues in agriculture as well as in manufacturing. Mechanical harvesting of cotton is now well established in some sections, and the use of the combined harvester-thresher in the harvesting of grain is growing because of its relative cheapness. Pages 41 and 42.

The multiplication of job-destroying machinery is causing the serious apprehension of labor, as indicated by numerous recent articles in the trade-union press. The excerpts published (p. 36) indicate on the whole that while the wage earners fear the so-called "technological" unemployment, they are not without hope of a rational solution of the problem.

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Cost of Medical Service

THE information for the present study was obtained from the personnel of the Bureau of Labor Statistics in the first week of April, 1928. At that time there were 117 persons, other than the commissioner, assistant commissioner, and agents in the field, in the service of the bureau. Satisfactorily compiled schedules were obtained from 114.

The term "cost of medical service," as used in this inquiry, covers all direct expenditures for health purposes, including the care of the teeth and eyes, medicines, hospital, and nursing charges, surgical appliances, etc., as well as the services of physicians and surgeons.

The principal points developed from the inquiry are as follows:

The average annual expenditures per employee for medical services were $98.92 for the group earning less than $2,000 per year; $146.13 for the salary group $2,000 to $3,000; and $190.63 for the salary group $3,000 and over. The average medical costs for all salary groups was $122.72, the average salary being $1,992.63. Expressed in terms of percentages, medical costs represented 6.2 per cent of salary in the lower salary group; 6.3 per cent in the middle group; and 5.5 per cent in the upper group.

Medical costs, reduced to an annual basis, were in excess of $500 in a number of instances. Nineteen persons spent over 10 per cent of their salaries for medical care, the costs ranging from 10.4 to 33.9 per cent.

Because of the large number of unmarried employees in the bureau, the average number of persons per schedule (i. e., the reporting employees and their dependents) was only 1.9, the average ranging from 1.8 persons in the lowest salary group to 2.2 in the upper group. Thus the average per capita expenditures for medical services were $54.96 for the lowest salary group, $69.59 for the middle group, $86.65 for the upper group, and $64.59 for all three groups combined.

The inquiry did not show, of course, the exact sums which, on the average, should be spent for medical services. Many employees, particularly those with the lower salaries and those with the larger families, neglect or postpone such medical treatment as is not absolutely imperative. This was shown in numerous statements made by employees replying to the present questionnaire. On the whole, however, it may be assumed that the members of the group earning $3,000 and over were expending approximately enough for all the major requirements of health, without being in a position to spend wastefully for services of this nature. It is probable, therefore, that the average per capita expenditure in this group represents the average minimum amount per individual necessary for the maintenance of health. The average per capita expenditure of the group is $86.65. On this basis the average annual cost of adequate medical services

would be approximately $350 for a family of four and approximately $430 for a family of five.

The cost of medical service to employees of the Bureau of Labor Statistics is considerably reduced by reason of the fact that the Department of Labor maintains a free dispensary service open to all employees of the department. Visits to the dispensary average about 10 per year per employee and thus represent an average money saving of at least $20 a year.

The summarized statistical findings of the inquiry are shown in Table 1.

TABLE 1.—AVERAGE ANNUAL MEDICAL EXPENSES OF 114 GOVERNMENT EMPLOYEES, CLASSIFIED ACCORDING TO SALARY

Salary class	Number of employees reporting	Number of persons covered	Average number of persons covered per schedule	Average salary	Annual medical expenses		
					Average per employee	Per cent of salary	Average per capita
$3,000 and over	9	20	2.2	$3,466.67	$190.63	5.5	$86.65
$2,000 and under $3,000	40	85	2.1	2,316.00	146.13	6.3	69.59
Under $2,000	65	115	1.8	1,589.54	98.92	6.2	54.96
Total	114	220	1.9	1,992.63	122.72	6.2	64.59

As noted above, the medical costs covered by this study include only direct costs. Indirect costs—such as loss of salary from illness and convalescence—are not included. Nor are funeral expenses included. As regards loss of salary, the regulations of the Department of Labor permit of a maximum *sick* leave of 30 days within any one calendar year, proper certification by a physician being required. As a maximum of 30 days of *annual* leave within a calendar year may also be allowed under the departmental regulations, an employee suffering a severe illness may be paid, at the most, for a period of 60 days without service during a calendar year. Beyond this period, the salary ceases. Neither sick leave nor annual leave is cumulative.

Furthermore, it should be noted that the medical costs reported in this inquiry were in many, and probably most, cases less than the actual amounts spent. Most of the employees replying had not kept complete records of all medical expenditures—especially for family medicines usually bought for cash—and as a result there was an evident tendency to understate the totals.

The results of the present study can not of course be accepted as conclusive for other than the personnel of the particular bureau to which they relate. On the other hand, the fact that the personnel of the Bureau of Labor Statistics has such a wide range of duties (from messengers to expert statisticians) and of salaries (from $1,020 to $4,400 per year) indicates that the results may be regarded as fairly representative of the other classes of salary and wage earners of similar income groups.

Individual Reports

THE detailed data for each of the 114 schedules obtained are given in Table 2. The schedules used requested information back to January 1, 1927, in the case of normal medical services and to January 1, 1926, in the case of special medical services. This was done in order

to cover the more extended cases of illness. In tabulating the schedules, however, all data were reduced to an annual basis, and the cost figures here presented represent in all cases average annual expenditures.

In the schedule and in the following tabulation distinction is made between "normal services" and "special services." By "normal services" is meant the ordinary and more or less routine services of the dentist, oculist, and family physician. By "special services" is meant those incident to the more serious illnesses requiring expenditures for surgeons, hospital, nursing, etc. Such a distinction is necessarily rather rough but permits of useful comparisons.

TABLE 2.—NORMAL AND SPECIAL MEDICAL EXPENSES OF 114 GOVERNMENT EMPLOYEES AND PER CENT OF SALARY THUS SPENT, BY SALARY GROUPS

Salary classification and employees' number	Number of persons covered	Salary	Average annual expenditures for—					
			Normal medical services		Special medical services		Total	
			Amount	Per cent of salary	Amount	Per cent of salary	Amount	Per cent of salary
$3,000 and over:								
Employee No. 1	3	$3,000.00	$84.00	2.8	$33.33	1.1	$117.33	3.9
Employee No. 2	3	3,100.00	28.80	.9	105.78	3.4	134.58	4.3
Employee No. 3	2	4,400.00	244.80	5.6	210.67	4.8	455.47	10.4
Employee No. 4	1	3,000.00	40.00	1.3			40.00	1.3
Employee No. 5	2	3,000.00	11.20	.4	6.67	.2	17.87	.6
Employee No. 6	2	3,300.00	56.36	1.7	171.84	5.2	228.20	6.9
Employee No. 7	1	4,000.00	20.00	.5	33.33	.8	53.33	1.3
Employee No. 8	4	4,400.00	154.40	3.5	400.89	9.1	555.29	12.6
Employee No. 9	2	3,000.00	113.60	3.8			113.60	3.8
Total	20		753.16		962.51		1,715.67	
Average	2.2	3,466.67	83.68	2.4	106.95	3.1	190.63	5.5
$2,000 and under $3,000:								
Employee No. 10	1	2,900.00	275.20	9.5	96.44	3.3	371.64	12.8
Employee No. 11	6	2,600.00	65.60	2.5			65.60	2.5
Employee No. 12	3	2,100.00	88.00	4.2	14.44	.7	102.44	4.9
Employee No. 13	1	2,000.00	113.40	5.7			113.40	5.7
Employee No. 14	6	2,600.00	131.20	5.0	.89	.03	132.09	5.1
Employee No. 15	1	2,600.00	81.20	3.1	19.56	.8	100.76	3.9
Employee No. 16	1	2,000.00	28.00	1.4	167.78	8.4	195.78	9.8
Employee No. 17	1	2,000.00	3.20	.2			3.20	.2
Employee No. 18	2	2,400.00	87.20	3.6			87.20	3.6
Employee No. 19	1	2,600.00	85.60	3.3			85.60	3.3
Employee No. 20	1	2,300.00	1.60	.1			1.60	.1
Employee No. 21	1	2,200.00	1.60	.1			1.60	.1
Employee No. 22	3	2,600.00	185.20	7.1	195.33	7.5	380.53	14.6
Employee No. 23	1	2,000.00	78.80	3.9			78.80	3.9
Employee No. 24	2	2,200.00	70.40	3.2	60.00	2.7	130.40	5.9
Employee No. 25	2	2,200.00	112.80	5.1	4.44	.2	117.24	5.3
Employee No. 26	1	2,040.00	39.20	1.9	121.78	6.0	160.98	7.9
Employee No. 27	4	2,600.00	171.00	6.6			171.00	6.6
Employee No. 28	4	2,600.00	114.66	4.4	22.00	.8	136.66	5.3
Employee No. 29	1	2,300.00						
Employee No. 30	1	2,300.00	55.20	2.4	11.56	.5	66.76	2.9
Employee No. 31	2	2,500.00	189.60	7.6	309.33	12.4	498.93	20.0
Employee No. 32	5	2,100.00	81.04	3.9	46.67	2.2	127.71	6.1
Employee No. 33	2	2,800.00	140.32	5.0	136.54	4.9	276.86	9.9
Employee No. 34	1	2,100.00	52.80	2.5	4.44	.2	57.24	2.7
Employee No. 35	4	2,100.00	453.88	21.6	355.56	16.9	809.44	38.5
Employee No. 36	1	2,000.00	88.00	4.4			88.00	4.4
Employee No. 37	2	2,000.00	56.00	2.8			56.00	2.8
Employee No. 38	2	2,000.00	64.00	3.2	8.89	.4	72.89	3.6
Employee No. 39	5	2,200.00	32.00	1.5	28.89	1.3	60.89	2.8
Employee No. 40	1	2,100.00	80.00	3.8			80.00	3.8
Employee No. 41	3	2,300.00	64.80	2.8			64.80	2.8
Employee No. 42	1	2,400.00	46.80	2.0	108.00	4.5	154.80	6.5
Employee No. 43	1	2,600.00	24.80	1.0	218.67	8.4	243.47	9.4
Employee No. 44	1	2,600.00	225.60	8.7			225.60	8.7
Employee No. 45	4	2,000.00	284.00	14.2	3.11	.2	287.11	14.4
Employee No. 46	2	2,600.00	35.08	1.4	4.89	.2	39.97	1.5
Employee No. 47	1	2,600.00	31.20	1.2	14.22	.5	45.42	1.7
Employee No. 48	2	2,200.00	71.60	3.3	22.22	1.0	93.82	4.3
Employee No. 49	1	2,300.00	25.60	1.1	33.33	1.4	58.93	2.6
Total	85		3,836.18		2,008.98		5,845.16	
Average	2.1	2,316.00	95.90	4.1	50.23	2.2	146.13	6.3

TABLE 2.—NORMAL AND SPECIAL MEDICAL EXPENSES OF 114 GOVERNMENT EMPLOYEES AND PER CENT OF SALARY THUS SPENT, BY SALARY GROUPS—Con.

Salary classification and employees' number	Number of persons covered	Salary	Average annual expenditures for—					
			Normal medical services		Special medical services		Total	
			Amount	Per cent of salary	Amount	Per cent of salary	Amount	Per cent of salary
Under $2,000:								
Employee No. 50	1	$1,620.00	$40.00	2.5	$88.89	5.5	$128.89	8.0
Employee No. 51	2	1,620.00	17.60	1.1			17.60	1.1
Employee No. 52	2	1,320.00	47.60	3.6	5.33	.4	52.93	4.0
Employee No. 53	1	1,680.00	41.60	2.5	123.11	7.3	164.71	9.8
Employee No. 54	2	1,920.00	48.00	2.5	20.00	1.0	68.00	3.5
Employee No. 55	4	1,680.00						
Employee No. 56	1	1,440.00	106.80	7.4	29.33	2.0	136.13	9.5
Employee No. 57	1	1,320.00	58.40	4.4			58.40	4.4
Employee No. 58	1	1,860.00	40.60	2.2	13.33	.7	53.93	2.9
Employee No. 59	1	1,860.00	12.23	.7			12.23	.7
Employee No. 60	1	1,860.00	40.40	2.2	64.44	3.5	104.84	5.6
Employee No. 61	1	1,380.00	156.00	11.3			156.00	11.3
Employee No. 62	1	1,440.00	20.00	1.4	88.89	6.2	108.89	7.6
Employee No. 63	3	1,740.00	72.20	4.1	13.33	.8	85.53	4.9
Employee No. 64	2	1,740.00	171.20	9.8			171.20	9.8
Employee No. 65	1	1,320.00	55.20	4.2			55.20	4.2
Employee No. 66	1	1,800.00	49.60	2.8			49.60	2.8
Employee No. 67	1	1,800.00	24.80	1.4			24.80	1.4
Employee No. 68	2	1,140.00	44.00	3.9	24.00	2.1	68.00	6.0
Employee No. 69	1	1,320.00	112.00	8.5	17.78	1.3	129.78	9.8
Employee No. 70	1	1,320.00	7.20	.5			7.20	.5
Employee No. 71	1	1,680.00	88.16	5.2	377.44	22.5	465.60	27.7
Employee No. 72	1	1,860.00	73.60	4.0	226.67	12.2	300.27	16.1
Employee No. 73	7	1,500.00	158.40	10.6			158.40	10.6
Employee No. 74	2	1,140.00	36.00	3.2			36.00	3.2
Employee No. 75	1	1,800.00	84.20	4.7			84.20	4.7
Employee No. 76	1	1,920.00	144.00	7.5	16.44	.9	160.44	8.4
Employee No. 77	6	1,620.00	29.60	1.8	39.11	2.4	68.71	4.2
Employee No. 78	1	1,380.00	2.40	.2	23.11	1.7	25.51	1.8
Employee No. 79	3	1,860.00	196.00	10.5	24.44	1.3	220.44	11.9
Employee No. 80	1	1,680.00	75.60	4.5	16.89	1.0	92.49	5.5
Employee No. 81	5	1,620.00	45.60	2.8			45.60	2.8
Employee No. 82	1	1,620.00	38.40	2.4	26.67	1.6	65.07	4.0
Employee No. 83	1	1,860.00	75.20	4.0			75.20	4.0
Employee No. 84	4	1,920.00	28.00	1.5	220.00	11.5	248.00	12.9
Employee No. 85	2	1,320.00	12.00	.9	22.22	1.7	34.22	2.6
Employee No. 86	5	1,620.00	87.20	5.4	151.11	9.3	238.31	14.7
Employee No. 87	1	1,920.00	108.00	5.6	2.22	.1	110.22	5.7
Employee No. 88	1	1,620.00	20.00	1.2			20.00	1.2
Employee No. 89	1	1,740.00	28.28	1.6	15.56	.9	43.84	2.5
Employee No. 90	1	1,320.00	56.00	4.2			56.00	4.2
Employee No. 91	1	1,740.00						
Employee No. 92	1	1,740.00						
Employee No. 93	2	1,560.00	64.00	4.1			64.00	4.1
Employee No. 94	1	1,680.00	16.80	1.0	160.00	9.5	176.80	10.5
Employee No. 95	4	1,680.00	64.00	3.8			64.00	3.8
Employee No. 96	1	1,500.00	28.00	1.9			28.00	1.9
Employee No. 97	3	1,860.00	71.20	3.8	150.67	8.1	221.87	11.9
Employee No. 98	2	1,620.00	2.80	.2	12.00	.7	14.80	.9
Employee No. 99	1	1,740.00	10.12	.6	4.89	.3	15.01	.9
Employee No. 100	1	1,380.00	15.20	1.1	22.22	1.6	37.42	2.7
Employee No. 101	1	1,380.00	28.00	2.0			28.00	2.0
Employee No. 102	1	1,320.00	2.40	.2			2.40	.2
Employee No. 103	1	1,320.00						
Employee No. 104	2	1,500.00	85.60	5.7	26.67	1.8	112.27	7.5
Employee No. 105	1	1,560.00	119.84	7.7	33.33	2.1	153.17	9.8
Employee No. 106	1	1,620.00	54.80	3.4	147.56	9.1	202.36	12.5
Employee No. 107	1	1,680.00	80.80	4.8	33.33	2.0	114.13	6.8
Employee No. 108	3	1,500.00	41.60	2.8	2.22	.1	43.82	2.9
Employee No. 109	5	1,380.00	102.80	7.4			102.80	7.4
Employee No. 110	1	1,020.00						
Employee No. 111	1	1,140.00	116.00	10.2			116.00	10.2
Employee No. 112	1	1,680.00	9.20	.5	13.33	.8	22.53	1.3
Employee No. 113	1	1,620.00	18.40	1.1	39.11	2.4	57.51	3.6
Employee No. 114	1	1,920.00	50.40	2.6	600.04	31.3	650.44	33.9
Total	115		3,534.03		2,895.71		6,429.71	
Average	1.8	1,589.54	54.37	3.4	44.55	2.8	98.92	6.2
Grand total	220		8,123.38		5,867.20		13,990.58	
Average	1.9	1,992.63	71.26	3.6	51.47	2.6	122.72	6.2

Recreational Activities of Labor Organizations

INQUIRY made by the Bureau of Labor Statistics, as part of its general trade-union survey,[1] has disclosed quite a remarkable activity along recreational and social lines by labor organizations. The value of social gatherings from the organization viewpoint—as promoters of fraternal spirit—is quite generally recognized by the international unions. Others, mainly in "confined" trades—where the members are employed in sedentary work or under more or less unhealthful conditions—encourage recreation and athletics, especially because of their bearing upon the health of the workers. Thus the printing-trades unions have urged their locals to participate in outdoor activities and sports as a means of counteracting the conditions of printing plants having dust and lead fumes. The unions of the clothing trades, for the same reasons, have also been active in the promotion of recreational activities which would provide the healthful exercise which their confining work makes desirable. That this is no new development for certain trade-unions is shown by the fact that in 1927 the printers held their seventeenth annual baseball tournament and their third golf tournament, while the printing-trades locals of Ohio, Indiana, and Kentucky have for the past 13 years held an annual bowling tournament.

Perhaps the majority of local unions hold at least one social event during the year, and a number have a regular social and recreational calendar, prepared by a regular committee or club formed for the purpose. Thus the Detroit local of the automobile and aircraft workers has formed a club for the promotion of sports. One New York local of headgear workers has formed a club which directs the social and recreational activities of the union, the aim being to make this work "both attractive to the members and constructive to the organization." In the various men's clothing centers the social and recreational work of the locals is directed by the joint boards of the union, the Amalgamated Clothing Workers. In New York City this work is done in the ladies' garment industry by the educational department of the International Ladies' Garment Workers' Union.

The social events and indoor recreation of the locals include dances, card parties, concerts, entertainments, banquets, an occasional play, etc. Of these, dances and dinners appear to be the most popular. In some cases the music (whether at concerts, entertainments, dances, or dinners) is furnished by the union band, orchestra, or glee club, of which there was found to be a rather surprising number.

Among the sports, baseball and bowling easily hold first place, although other forms of athletics are less frequently found. These include tennis, golf, basketball, hockey, football, boxing, hikes, swimming, and even a team of sharpshooters.

A great many instances were found where the local arranges at least one picnic, moonlight excursion, or short trip for its members during the summer, while others have a regular program of such affairs. Other outings arranged for by locals for their members include automobile rides, trips to points of interest, etc. One local runs an amusement park, equipped with all sorts of amusement

[1] Data have already been published in the Labor Review, as follows: Trade-union provision for the sick, aged, and disabled, January, 1928 (pp. 1-16); Trade-union pensions and homes for aged, February, 1928 (pp. 1-29); and Measures to combat or relieve unemployment, March, 1928 (pp. 8-34).

devices. Several union groups have summer camps; in other instances camps have been held for children which have received trade-union support; about 10 per cent of the locals of the meat cutters are reported to have summer camps; and the Women's Trade-Union League at Chicago has had such a camp since 1917. The International Ladies' Garment Workers' Union owns and operates a most extensive and well-equipped summer resort.

In the main the recreational and social features appear to be carried on independently by each local. In some cases, however, neighboring locals of the same union or the various locals in a locality may combine their activities. Thus, adjacent locals of the meat cutters and butcher workmen hold bowling matches and baseball games, as do also adjoining locals of the hosiery workers and printing-trades unions. In some sections of the country some of the railroad brotherhoods hold joint socials, picnics, etc. In the men's clothing centers, as already stated, the joint board composed of representatives of all the Amalgamated locals in the city directs the recreational and social work and acts as a coordinating agency between locals. The local unions of the printing trades in Ohio, Indiana, and Kentucky cooperate in an annual bowling tournament.

A good deal of interlocal activity along social or recreational lines may take place where there is a central labor temple, as it was found that provision for social gatherings is made in a good many labor temples. Of the temples from which data were obtained, half or more contained clubrooms, assembly halls, reading rooms, and facilities for serving refreshments; about two-fifths had billiard or pool tables; about the same proportion a fully equipped kitchen; and about one-third had classrooms. Smaller numbers contained provision for the showing of motion pictures, for radio, or special rooms for card parties, dances, banquets, etc.

Extent of Activities

INQUIRY was made of the international unions as to the kinds and extent of recreational activities of their local unions. The information at hand discloses that more or less social and recreational activity of one sort or another is undertaken by locals of 41 organizations.[2] The Brotherhood of Locomotive Engineers reported that many of its lodges have recreational and social features but the brotherhood has no data concerning the extent of the work. Eight internationals [3] reported that their locals may do recreational work but the central organization has no information; the paving cutters' union reported that there is "little if any" social or recreational activity in its locals; and seven internationals [4] stated that nothing is done by their locals along recreational or social lines.

[2] Automobile and aircraft workers, Amalgamated Clothing Workers, Amalgamated Metal Workers, bookbinders, bricklayers, bridge and structural-iron workers, carpenters, cloth hat, cap, and millinery workers, electrical workers, fire fighters, glass-bottle blowers, hod carriers, hosiery workers, iron, steel, and tin workers, lathers, ladies' garment workers, letter carriers, lithographers, locomotive firemen and enginemen, meat cutters and butcher workmen, metal engravers, mine, mill, and smelter workers, paper makers, pattern makers, photo-engravers, plumbers and steam fitters, postal clerks, potters, printing pressmen, printers, quarry workers, railroad telegraphers, railway clerks, retail clerks, stereotypers and electrotypers, street-railway employees, tobacco workers, United Garment Workers, upholsterers, wall-paper crafts, and Window Glass Cutters' League.

[3] Blacksmiths and drop forgers, boiler makers, brewery and soft-drink workers, coopers, leather workers, Operative Plasterers and Cement Finishers, stove mounters, and textile workers.

[4] Foundry workers, granite cutters, maintenance-of-way employees, National Window Glass Workers, train dispatchers, trainmen, and window-glass cutters and flatteners.

Attitude of Internationals toward Recreational Activities

THE internationals quite generally concede the value of sports and outdoor and social gatherings. The secretary of the street-railway employees' union considers recreation and social events "very beneficial to the health, welfare, and morale" of the men, while the editor of the Railway Clerk states his opinion to be that "it is the failure of the trade-unions more actively to engage in recreational activities that has been responsible in part for the growth of the company union." The hosiery workers' union regards such activities as a valuable means of approach in its organizing work. It also states:

> This union feels that if the members are interested in athletics or take part in social activities the union should make an effort wherever possible to have the workers engage in these affairs or activities through their organization. This will tend to avoid personal friction in the local unions and between locals, and will and has improved the morale of a local as a whole.

The plumbers and steam fitters' union is of the opinion that sports and socials tend "to peace and tranquillity in the industry," and the secretary-treasurer of the Window Glass Cutters' League states "we would consider it a blessing if there were more work along this line."

The president of the Upholsterers' International Union in his report to the 1927 convention of that body referred with approval to the social activities being undertaken by the locals, stating—

> Probably at no time during our history have there been so many social affairs, dances, smokers, picnics, and banquets held by our various local unions as during the past two years. I am glad to note this and wish to give my hearty indorsement to such activities as conducive to the fostering of sociability among our members and thus promoting unity, harmony, and general good fellowship. This is needed to awaken the spirit of those who see in the union activities only dry routine to be left as a burden upon the shoulders of the faithful.

The Amalgamated Clothing Workers is one of the unions which is encouraging athletics and healthful recreation among the members. The need of outdoor exercise for workers in sedentary occupations like those in the clothing industry was recognized by the 1926 convention of that body in a resolution calling upon the locals to establish groups to further sports and physical culture and to give moral support to the consolidation of all existing workers' gymnastics, sport, and athletic groups, and to the combination of these groups into "a closely knit, well organized and directed labor sports movement."

It was pointed out recently in the Advance, the official organ of the union, that "the Amalgamated membership as a whole has not learned to play," and does not generally place sufficient importance upon recreational activities.

> The pioneers in clothing making were accustomed by force of circumstances to long hours of labor. This accounted for the high percentage of tuberculosis victims among the clothing workers. Since the advent of the civilizing and redeeming force under influence of the Amalgamated Clothing Workers of America the conditions have been greatly improved and the hours of labor have been reduced from 60 or 70 to 44 per week. There is now ample time for the membership to pay more heed to their physical well-being. Without health there can be no happiness. The Amalgamated is big enough to embrace every feature of life and is promoting educational, recreational, and social enterprises. It is the members themselves that are lagging. There is a serious lack of interest in these really worth-while things that make for healthier, happier communities.

General Social Events and Indoor Recreation

DANCES, card parties, "smokers," concerts, entertainments, and banquets are among the social affairs undertaken by locals. In many cases such affairs are regular annual events, which are looked forward to with interest and of which much is made. Thus, the Czechoslovak local of the Amalgamated Clothing Workers at Chicago holds an annual masquerade ball and dance. The affair is elaborately put on. At the latest one, held early in February, the hall was decorated to resemble the far north. The decorations, it is stated, were made by members of the committee and their families, "who put in six weeks' work in preparation for the affair."

An annual dinner or banquet is the most common feature among the local unions. All of the locals of the hosiery workers and of the metal engravers give a dinner each year or oftener, as do also about one-fifth of the iron, steel, and tin workers' locals, many of the stereotypers' locals, and a number of the locals of the bricklayers, bridge and structural-iron workers, carpenters, electrical workers, hod carriers, locomotive engineers, locomotive firemen, meat cutters, paper makers, pattern makers, plumbers, railway clerks, retail clerks, and upholsterers.

Occasional dances are given by all of the hosiery workers' unions, by nearly three-fourths of the meat cutters' local unions, and by varying numbers of locals of the Amalgamated Metal Workers, bookbinders, bricklayers, bridge and structural-iron workers, electrical workers, hod carriers, locomotive firemen, mill, mine, and smelter workers, paper makers, pattern makers, potters, railway clerks, retail clerks, stereotypers, wall-paper crafts, upholsterers, and window-glass cutters.

The educational department of the International Ladies' Garment Workers' Union is active in the promotion of social and recreational work, especially in New York City. Concerts and entertainments are arranged from time to time, often in connection with the Workers' University of the union. An elaborate series of entertainments was thus arranged at Unity House for the Labor Day week-end, including a pageant, a concert, and a costume ball. An entertainment given January 28, 1928, included a concert followed by a pageant including 150 people, and ending with a dance. Such entertainments are free to union members, it being the policy of the department "to make no charge for any service or activity offered to our members, whether lectures, concerts, sociables, or dramatic performances." The expense is met by the international union.

Some of the social activities of labor organizations, especially dramatics, are held in connection with the labor colleges. Thus it is reported that "a permanent labor college theater" has been developed in Denver. The students—all trade-unionists—present "one-act workshop plays" throughout the school year, and "once or twice in the year they present to the college and the public a major industrial play." Somewhat similar work is being done in Baltimore, where a group known as the Baltimore Labor Players, under the auspices of the Baltimore Federation of Labor, is producing occasional plays.

The Pioneer Youth of America reports that at a conference of the Women's Trade-Union League in Philadelphia one of the Pioneer

Youth clubs presented a play, and dramatics form one of the regular features of the organization's clubs and camps.

Dramatic performances in which members of local unions take part are reported only by the Brotherhood of Railway Clerks, the International Brotherhood of Bookbinders, the International Hod Carriers, Building and Common Laborers' Union, and the International Stereotypers' and Electrotypers' Union, this feature, in the last case, being limited thus far to one local. The Cincinnati lodges of railway clerks have a joint committee which occasionally produces plays. The Milwaukee branch of the hosiery workers at its meeting for the installation of officers staged a vaudeville show, while one of the New England locals at a recent meeting had a boxing exhibition, following the account of a prize fight which the members had listened to over the radio.

A few of the international organizations report that motion pictures form a part of the recreational program of some of their locals. These include the pattern makers, railroad telegraphers, tobacco workers, and upholsterers.

Musical Organizations

ORCHESTRAS, bands, or glee clubs seem to be fairly numerous among the local trade-union organizations. Thus, the Chicago printers' local has a band, as have also a number of the letter carriers' local unions. The latter have been in existence for some years.

The Portland, Oreg., local of the International Association of Fire Fighters has organized an orchestra which, besides furnishing entertainment for union affairs, has also participated in the regular radio programs in the city, appearing weekly in what is known as "Fire Fighters' Hour."

A singing club has been formed by members of the Dover, N. J., branch of the hosiery workers, and one stereotypers' local has a glee club. Other internationals some of whose locals have formed some sort of musical organizations include those of the bricklayers, hod-carriers, iron, steel and tin workers, marine engineers, photo-engravers, printers, tobacco workers, and upholsterers. About one-tenth of the meat cutters and butcher workmen's locals are reported to have bands or orchestras.

Sports and Athletics

BASEBALL and bowling appear to be the sports most popular among trade-unionists.

Baseball.—The Amalgamated Association of Street and Electric Railway Employees reports that all of its large locals have baseball teams. On large systems each station has a team, and a league is formed, the teams of which compete with each other during the season. Practically all of the 101 locals of the Glass Bottle Blowers' Association have ball teams. Among the metal engravers two-thirds of the locals have teams, among the window-glass cutters 30 per cent, among the paper makers 20 per cent, and among the iron, steel, and tin workers and the hosiery workers 5 per cent.

The Cincinnati joint board of the Amalgamated Clothing Workers of America early in 1927 organized a league for the four teams of the men's clothing workers in that city, and interest was reported as being

keen. The joint board in Rochester, N. Y., has for several years had a baseball team. In 1927 this team was admitted into the Industrial Baseball League of the city, composed of teams representing industrial establishments.

The teams of the New Jersey-New York district of the American Federation of Full Fashioned Hosiery Workers have formed a league for the district. The teams play under the names of their respective local unions, with the idea of creating "a stronger feeling of union loyalty among the workers through having their recreational and social activities center more and more around the union." There are seven such teams in the league—two from Brooklyn, two from Paterson, and one each from Passaic, Newark, and Dover.

The local baseball teams of the International Typographical Union have since 1908 had a league called the Union Printers' International Baseball League which holds a yearly tournament in connection with the annual convention of the International Typographical Union.

The tournament is made the occasion for a time of general jollification, the evenings being devoted to social affairs, while in the mornings lectures, open to any one who cares to attend, are given on such subjects as sanitation, hygiene, athletics, and general recreational subjects.

The baseball teams, it is stated, have been of benefit in interesting the younger members in outdoor sports and in improving their physical condition. The games also tend to promote greater social intercourse between the members and the families of members.

The students of the Printing Pressmen and Assistants' Union technical trade school at Pressmen's Home, Tenn., have had a baseball team since 1912. "Never a year has passed but that during the baseball season this team has won more games than it has lost." Some of the locals of the union also have teams. Among these is that of the Indianapolis press assistants' local, which, it is stated, "has done more to put the press assistants' union before the public of Indianapolis than anything we have ever tried."

Each of the local unions of railway clerks in Cincinnati has a baseball team and these have formed a league with a schedule of games between teams in the league.

Other unions some of the locals of which have baseball teams include the bricklayers, hod carriers, meat cutters and butcher workmen, pattern makers, plumbers and steam fitters, and stereotypers and electrotypers. The plumbers and steam fitters' union reports that its Windsor, Ontario, local recently won the industrial baseball championship of Canada. The Redwood, Calif., local of the United Brotherhood of Carpenters formed a baseball team during the summer of 1927, as did also the local in Big Spring, Tex.

Bowling.—In about two-thirds of the metal engravers' locals, about 20 per cent of the window-glass cutters' locals, about 15 per cent of the hosiery workers' locals, and some 3 per cent of the paper makers' unions, bowling groups are found.

Bowling has also been taken up by the men's clothing workers of Cincinnati and Indianapolis, and during the winter of 1927–28 matches were arranged between these teams. The Amalgamated teams of Rochester have a bowling league, the teams of which compete for weekly prizes. The season is ended with a banquet. One

of the teams, representing the joint board, bowls in an industrial league. It is reported that in Milwaukee practically the entire membership is interested in bowling. Teams have been formed representing the different shops and these compete with each other.

Five locals in the New Jersey-New York district of the American Federation of Full Fashioned Hosiery Workers have bowling teams. A league has been formed and interlocal matches are played. A supper is usually given on the occasions of interlocal games. One local has six teams which play against each other once a week, after which some sort of social affair is held.

Bowling appears to be one of the favorite indoor sports of the photo-engravers also. One of the secretaries reports that the men in his local union have "gone mad" over bowling.

In connection with the 1927 convention of the National Federation of Post Office Clerks a bowling tournament was held for the teams of the various locals, and a trophy was awarded to the winning team.

Various locals of railway clerks have bowling teams. The teams in the vicinity of Cincinnati held a tournament in April, 1928, all trade-union teams in the territory being invited to take part. There are in the city of Cincinnati alone 12 bowling teams of railway clerks.

The stereotypers and electrotypers in Chicago, Cleveland, St. Louis, Detroit, and Philadelphia have bowling teams, and each year a competitive event is held at which some or all of the various city locals are represented. The bowling teams of the various printing-trades locals in the States of Ohio, Indiana, and Kentucky have for the past 13 years held an annual bowling tournament. This, it is stated, has had a remarkable success in increasing the fraternal spirit, and in bringing about a closer relationship and understanding between the members of the printing crafts.

Organized activity in this sport is also a feature in some of the locals of the bricklayers, hod carriers, lithographers, masons and plasterers, meat cutters, and plumbers and steam fitters.

Other sports and athletics.—The other forms of athletic sports are less frequently found. The Amalgamated Meat Cutters and Butcher Workmen reports that some 60 per cent of its locals have organized activity in "other sports," but does not specify what these are. Several of the paper makers' locals encourage tennis, as do also a few of the stereotypers and electrotypers' locals, and the Amalgamated Clothing Workers of Rochester, N. Y., has a tennis club, the members of which play on the public courts.

A few of the stereotypers' locals whose membership includes golfers have matches for them, as do also about 15 per cent of the hosiery workers' locals.

So successful was the printers' baseball league that in 1924 the Union Printers' International Golf League was formed, being promoted by the baseball league as an adjunct to it. It was thought that members who considered baseball too vigorous might be interested in golf. A golf tournament is held each year in connection with the baseball tournament. All members of printers', mailers' and newswriters' unions are eligible for membership; and it is stated by the president of the league that both baseball and golf are "enthusiastically indorsed by the trade-unions and employers of

their members as a well-conducted and most valuable agency for the preservation and improvement of the health of the apprentices and journeymen of both sexes employed in printing plants."

There are also a few union basket-ball teams. These include electrical workers, men's garment workers, hosiery workers, etc. The Utica, N. Y., clothing cutters' local of the United Garment Workers of America has a basket-ball team which plays in the industrial league of the city. Each member of the team wears on the front of his suit the union label of his labor organization. The Rochester joint board of the Amalgamated Clothing Workers of America has two basket-ball teams, one for women and one for men, and one of the locals of the Window-Glass Cutters' League is reported to have a team. The Paterson, N. J., local of hosiery workers has a basket-ball team, and last winter a girls' team was formed among the members of the ladies' auxiliary of the local.

One or two of the paper makers' locals have a hockey-playing group, and the Glass Bottle Blowers' Association reports that practically all of its locals have football teams.

The International Brotherhood of Electrical Workers states that 60 per cent of its locals carry on athletics or sports of various kinds, boxing and basket ball being the most popular. Boxing matches are also a feature of the activities of some of the hod carriers' locals, and many also have pool-playing groups.

The Portland, Me., local of post-office clerks has a team of sharp shooters composed of five young woman unionists.

Some of the women's locals of the International Ladies' Garment Workers and of the full-fashioned hosiery workers are encouraging the formation of athletic groups which go in for swimming, hiking, etc., and the educational department of the former organization is conducting a physical training and swimming class for its members. Hiking clubs are also encouraged by some of the headgear workers' locals, and the Philadelphia dressmakers' local arranges for swimming lessons for its members, for the playing of tennis, and for hikes each Sunday.

Summer Outings

SUMMER outings are arranged by many local unions. Thus, nearly all of the locals of the railway clerks and of the plumbers and steam fitters' organizations have one or more picnics during the summer, all of the hosiery workers and automobile and aircraft workers' unions do so, 75 per cent of the meat cutters' organizations, two-thirds of the metal engravers' locals, 10 per cent of the iron and steel workers' unions, a few locals of the Amalgamated Clothing Workers, bricklayers, bookbinders, electrical workers, locomotive firemen and enginemen, metal workers, paper makers, pattern makers, quarry workers, stereotypers, and upholsterers, and one local of the wall-paper crafts. The lathers' union reports that 90 per cent of its locals hold at least one picnic or other social event during the year.

Excursions or short trips of various sorts are arranged by all of the hosiery workers' locals, by nearly all of the unions of railway clerks, by about half of the meat cutters' unions, about 10 per cent of the iron, steel, and tin workers' unions, by a few of the locals of the bookbinders, bricklayers, electrical workers, stereotypers, and upholsterers, and by one local of the automobile and aircraft workers.

The two large dressmakers' locals in New York City, belonging to the International Ladies' Garment Workers' Union, have excursions on the Hudson River, chartering a steamer for the purpose. The Philadelphia dressmakers' local has formed an educational, social, and recreational circle, which has given automobile trips to Unity House, Valley Forge, and other points of beauty and interest fairly near to the city. The members of the Philadelphia hosiery workers' local in 1927 took a railroad trip to Atlantic City; during the affair prizes and souvenirs were distributed to those participating.

The Rochester organization of the Amalgamated Clothing Workers is very active in the promotion of week-end outings, railroad excursion trips, and picnics throughout the summer.

The St. Louis Bakers' Local No. 4 is unique in its recreational work, as far as the knowledge of the Bureau of Labor Statistics goes, for it owns and operates an amusement park. The local owns a triangular block of land facing three streets, with a frontage of 543 feet on one, 300 feet on the second, and 631 feet on the third. On one corner of the land stands the headquarters building of the local. The amusement park is equipped with Ferris wheel, merry-go-round, fairy swing, shooting gallery, fish pond, hoop-la, open-air dancing pavilion, refreshment stands, shelters, picnic facilities, etc. The place will accommodate as many as 4,000 persons at a time.

Summer Camps and Vacation Homes

UNITY HOUSE.—The recreational work of the International Ladies' Garment Workers' Union, according to Louis Levine in his book, The Women's Garment Workers, was begun in 1915, with the renting by Local No. 25 of a house at Pine Hill, N. Y., accommodating 50 persons. This was taken to serve as a center where members could spend their summer vacations in pleasant surroundings at a very reasonable cost. Later the same local acquired a resort at Forest Park, Pa., being subsequently joined in this project by Local No. 22. In June, 1925, the international bought the property and took over its operation. The place is called Unity House. The grounds comprise 750 acres of woodland and a lake a mile and a half long. There is a large central house on the grounds and 12 cottages, the whole group of which accommodates about 500 guests at a time.

The main building is surrounded by wide porches and contains a large living room with a fireplace, a writing room, and a concert room and dance hall. The meals at Unity House are prepared under the direction of a dietitian, and are served in a dining room overlooking the lake. There is also a library and reading room well stocked with books and magazines and with a librarian in charge. The cottages contain the bedrooms, most of which are provided with hot and cold running water and some with bath. Covered walks connect the cottages.

The camp has its own electric lighting and water systems, post office, laundry, and ice-cream parlor, and an infirmary to care for guests who are indisposed while at Unity House. There is a full-time physician and a nurse in attendance at the infirmary, whose services are free to the guests. Well guests may also receive a free medical examination.

Provision is, of course, made for outdoor recreation. The lake provides means for bathing, fishing, boating, and swimming. For the less adventurous, a part of the lake has been walled off with concrete, making a swimming pool. Some 70 bathhouses are provided for the swimmers. A swimming instructor and a life-saver are in attendance at the lake. A small charge is made for boats and canoes, but the other recreational features—swings, tennis and basket-ball courts, baseball diamonds, bowling alleys, etc.—are free. The woods furnish the setting for hikes. A tower has been built on the shore of the lake, from which a view of the whole expanse of water can be obtained, while small pavilions have been constructed on piers running out into the lake. Part of the recreational activities are the bus and automobile rides taken into the surrounding country. All of the recreation is under the supervision of a social director.

During the summer season lectures are held in a pine grove near by. These are given several times a week by prominent psychologists, economists, and sociologists. This is arranged for by the educational department of the international. Evening activities include group singing, dancing, costume parties, theatricals given in the open-air theater near by, and concerts. The 1927 program of lectures included talks on psychology, sociological subjects, economics, social interpretation of literature, drama, art, topics of the day, the place of organized labor in modern society, the organized workers as a social force, the place of women in the labor movement, care of the health, etc. An art exhibit was one of the features of the 1927 season, and included informational talks by an artist.

In the winter of 1927–28 one of the cottages was equipped with steam heat and will remain open until the summer season begins in June, offering opportunity for rest or for winter sports. This was an experiment but has proved to be so successful that it will doubtless be repeated next year.

The whole project, which is valued at more than $200,000, is run on a nonprofit basis. Members of the International Ladies' Garment Workers' Union pay $18 per week, members of other unions $21 a week, and nonunionists $26 a week. During the summer of 1927, members of 23 unions, including workers in trades other than the needle trades, spent all or part of their vacations at Unity House.

Camp Nitgedaiget.—Camp Nitgedaiget ("Don't Worry") is a year-round camp run by a group of union workers in New York City as one of the community activities of their cooperative colony.[3] This camp was started about six years ago. The organization owns more than 100 acres of wooded and rolling land near Beacon, N. Y. Originally only tents were provided for vacationists; now, however, it is the policy, as the tents wear out, to replace them by bungalows of one to three rooms each. Already 75 bungalows have been built, and 500 tents are still in use. There is a central dining hall which accommodates 900 persons at a time. The camp is equipped with running water obtained from the city main which crosses the land of the association.

A swimming pool several hundred feet long has been formed by damming up a stream flowing through the property. Facilities for other sports are furnished by an athletic field.

[3] The cooperative housing work of this colony will be described in a later article.

The camp charges are $2.50 per day, or $18 per week, which price includes meals. About $125,000 worth of business is done at the camp annually. The land and equipment are valued at over $100,000.

Another camp of the same name as the above is operated by a group of workers in Boston. Their camp is located near Franklin, Mass.; no details are available concerning it, however.

Pioneer Youth camps.—An organization called the Pioneer Youth of America was formed in New York in 1924, as the outgrowth of a series of conferences on child development, by a group of trade-unionists, educators, and others. It was started with a view to establishing children's clubs throughout the United States. The purpose of the organization is to prepare the children of workers to take their place in the labor movement, "to understand social and industrial conditions and the problems that face us to-day; to develop a sense of social responsibility, and prepare them to take part in labor's effort to attain a happier and freer life." Through the clubs it was intended to extend the principle of workers' education to the children—the future trade-unionists.

The first year a summer camp was established on the grounds of Manumit School, at Pawling, N. Y. Grounds were rented again the next year, but in 1927 the organization bought a camp site in the Catskill Mountains, at Rifton, N. Y. The grounds consist of 140 acres of wooded hills and meadow land, and include a pond and an 8-acre lake. One hundred and ten children can be accommodated at a time. Separate quarters are provided for boys and girls, each under supervision. All the camp activities are participated in jointly, however.

These activities combine recreation and education and include field study and various recreations which are educational as well, such as games, athletics, rowing, swimming, camp craft, dramatic arts, handicrafts, music, mechanics, improvised entertainments, discussions, photography, first-aid training, carpenter work, etc., all under the supervision of trained instructors. To give the children experience in rough camping, a backwoods camp has been established, to which they may go for several days at a time. There they will learn to do camp cooking and to provide for their other needs.

Children ranging from 10 to 18 years of age are accepted at the camp. Each child must be examined by a doctor before going to camp and submit to bimonthly examinations while there. A registered nurse is in attendance at the camp and there is a physician in the neighborhood.

The season lasts from the last week in June to the first week in September. Children of trade-unionists pay $13.50 per week, but those of nonunionists are charged $21 per week. (Last year 30 per cent of the children were sons and daughters of nonunionists.) Benefits have been given at various times, the proceeds of which have been used to establish a fund from which "scholarships" could be given to defray the expenses at camp of children of strikers or of other workers who can not afford to send their children to the camp.

Branches of the movement have been established in Philadelphia and in Baltimore. The former is supported by some 30 unions. This branch is forming clubs throughout the city, and in 1926 held a

summer camp at Media, accommodating 66 children. In New York City and Philadelphia there are now 30 clubs.

The branch in Baltimore is under the auspices of the Baltimore Federation of Labor. A camp was operated during the summer of 1927, located about 3 miles from Annapolis. Fifty-one children were accommodated at the camp at the rate of $6 per week. This rate did not cover the cost of operation, but the deficit was made up mainly by contributions from labor unions.

Early in 1928 there were 162 local labor organizations participating in the movement, and the international unions of the teachers, hosiery workers, machinists, firemen and oilers, fur workers, hatters, ladies' garment workers, textile workers, and headgear workers, in addition to the labor federations of Baltimore and Pennsylvania and the Central Labor Council of New York City.

Other summer camps and homes.—Since 1917 the Women's Trade-Union League at Chicago has been operating a summer camp. In that year this organization of woman trade-unionists was given a free lease on a cottage at Ravinia. Since then various sites have been used for the summer camp. In 1920, however, a fund was started which was used to build a cottage at the edge of the forest preserve near Palatine, Ill., and near a large lake. The bricklayers' union furnished the bricks and labor to build the fireplace, and the painters' union painted the house. A little portable house presented to the league in 1918 serves as a dining hall and kitchen. The camp with its tents can give overnight accommodation to 20 persons at a time, in addition to parties which go out to the camp merely for the day.

The camp is only 30 miles from Chicago. The railroad fare is only 96 cents for the round trip from the city, and a charge of 50 cents per night is made for the use of the camp facilities. Camping parties must furnish their own food and linen. The attractions offered by the camp are hiking, water sports, baseball, croquet, etc. About 450 persons use the camp each summer.

The Amalgamated Meat Cutters and Butcher Workmen of America reports that about 10 per cent of its locals have summer camps.

The local unions of railway clerks affiliated to the board of adjustment of the Southern Railway System have built a clubhouse on a piece of land (donated to them) near Saluda, N. C. The unions plan to use part of the property for recreational purposes and to make the site a place where the members may spend their vacation at a nominal cost. The main building will be opened some time during May, and it is expected that some of the larger lodges will build cottages for the use of the members. Thus far the recreation provided for is limited to dancing in the main building; at least two tennis courts will, however, be provided, and the organization hopes to build a swimming pool. It is expected that the place will also be used as a convalescent and rest home for members of the order and for persons in the first stages of tuberculosis.

Recreational and Community Features of Labor Buildings

QUESTIONNAIRES were sent out by the Bureau of Labor Statistics to labor temples in various sections of the country in the attempt to gain an indication of the extent to which provision is made in such buildings for social gatherings. No attempt was made

to make the survey inclusive, but a sufficient number of buildings was included in each section of the country to make the study at least representative. It included not only the general "labor temples"—i. e., buildings shared in as a meeting place by some or all of the local unions of the locality—but also buildings which are the headquarters of one local or international in cases where there was some community feature which warranted their inclusion. A good many buildings—labor temples as well as headquarters buildings—are used only for office and business purposes. With these this study has no concern, inasmuch as it is the social, recreational, and community features which are of interest here, and reports from these were therefore omitted.

Labor temples.—Data were obtained from 42 labor temples which have some community feature. All but two of these are owned by the unions and unionists affiliated with the labor temple association; these two are rented. The following statement shows how many of the 40 union-owned labor temples make provision for each specified community or social feature. The International Brotherhood of Electrical Workers was quoted recently as having in view a plan by which the labor temples and lodge rooms would be converted into motion-picture theaters. As the statement below shows, in a few of the labor temples provision has already been made for the showing of motion pictures as well as for other community activities:

Temples having—	Number
Clubrooms	20
Auditorium or assembly hall	33
Reading room	26
Classrooms	13
Billiard or pool tables	17
Stage	[6] 14
Motion-picture apparatus	6
Screen	8
Radio	4
Other recreational features—	
Card rooms	2
Dance hall	[7] 3
Facilities for serving refreshments	29
Kitchen	[8] 18
Banquet or dining room	[9] 6

In addition to the above, three buildings have a counter where soft drinks or candy or both are served. The association controlling one building, during the last industrial depression, installed a hotel range for use in preparing meals for the unemployed.

Two labor temples are worthy of special mention as regards their community features. These are the temples at Portland, Oreg., and Los Angeles, Calif.

The Portland temple is claimed to be "the largest and most complete building in the United States devoted exclusively to labor temple activities." It is six stories in height and occupies a ground area of 100 by 150 feet. It contains 45 offices, 11 halls with a seating capacity varying from 20 to 300, a large parlor, an auditorium seating 1,500, clubroom, reading room, and a classroom used by the Portland

[6] Portable, in 1 case.
[7] In 1 case, 2 halls.
[8] In 1 case, 2 kitchens.
[9] In 2 cases, 2 dining halls each.

Labor College. The ground floor contains a refreshment bar, cigar store, barber shop, pool room, restaurant, and card room. All of these are operated directly by the labor temple association, a manager (engaged by the board of directors of the association) having charge of all these departments. The auditorium has a hardwood floor and may be converted into a dance hall; it is also equipped with stage, motion-picture apparatus, screen, and radio.

Dances, card parties, smokers, and various kinds of entertainments are held in the temple, making it a real center of trade-union life and activity.

The land, building, and equipment cost $396,566. Some 97 local unions own stock in the association; individual unionists may also own stock but this must be voted by the union to which they belong.

The Los Angeles temple, which was erected at a total cost of $244,048, is a seven-story building, containing 18 halls seating from 25 to 1,500 persons, and 32 offices. An annex contains an auditorium equipped with an inclined floor that can be raised or lowered, as the occasion requires, so as to be easily convertible into either assembly room with seats or a large dance hall; this feature, it is stated, cost $40,000. The auditorium is also equipped with a stage, motion-picture apparatus, and screen. The building also contains clubroom, reading room, classrooms, billiard tables, and two smaller dance halls.

Headquarters buildings.—The international organizations of a great many labor unions own their own headquarters building, as do also many of the local unions. Perhaps the majority of international buildings are used for office purposes only, as more social life is found in the local than in the national organization. A few of the international headquarters buildings do, however, contain some provision for community activities. Thus that of the Order of Railroad Telegraphers is equipped with motion-picture apparatus and screen and radio, that of the Amalgamated Association of Iron, Steel, and Tin Workers has an auditorium and a kitchen, that of the Brotherhood of Railway Carmen has reading rooms, that of the United Association of Journeymen Plumbers and Steam Fitters is equipped with a kitchen and a dining room, and that of the International Union of Painters and Decorators has clubroom, auditorium, reading room, and a well-equipped kitchen.

In several cases the international has purchased a house and made alterations to suit its purposes. This has been done by such organizations as the plumbers, railroad telegraphers, and printers. The International Typographical Union in 1925 purchased the former residence of an Indianapolis millionaire, paying for the house and 5 acres of land surrounding it $167,500. This building has been converted into offices, though still to some extent retaining the character of a home in furnishings and atmosphere. A very large well-furnished reception room which extends across nearly the whole front of the building affords facilities for assembly and a well-equipped kitchen allows of the serving of refreshments. The beautiful solid-mahogany hand-carved staircase leading from the reception hall, the solid silver lighting fixtures in what was formerly the dining room, and the exterior beauties—spacious, terraced grounds and sunken gardens—make the whole a very unusual labor headquarters. The place is valued to-day at more than $300,000.

The Order of Railroad Telegraphers in 1924 purchased for $65,000 the former home of a wealthy resident of St. Louis and this is now being used as the headquarters of the order. The house is built of New Hampshire granite, is three stories in height, and stands on a plot of ground 175 by 213 feet. The interior was left practically as it was and the walls are still covered with the mural decorations, but the rooms on the first and second floors have been converted to office use. Each of the 27 rooms, it is stated, is finished in a different kind of hand-carved hardwood and the floors are lined with asbestos. The third floor has been converted into a library, museum, and art gallery. Each room in the building is equipped with a telegraph instrument instead of telephone for communication within the house.

The homes of some of the local unions are also worthy of note. Thus the building owned by the weavers' local union at New Bedford, Mass., built from accumulated union funds, contains clubroom, reading room, classrooms, and an auditorium equipped with motion-picture apparatus and screen. The building also contains equipment for serving refreshments, and with all these facilities has become the center for dancing, musical entertainments, whist parties, and various community activities.

The bricklayers' local of Cincinnati, Ohio, occupies its own building, containing a clubroom, reading room, classrooms, and auditorium, as well as provision for the playing of billiards.

The Chicago local of street-railway employees of the surface lines owns a headquarters building which cost $1,150,000, and contains four halls seating from 150 to 500 persons, and a large auditorium seating 4,000 people and equipped with a stage provided with footlights, electrical apparatus, and other theatrical accessories. The floor of the auditorium is so arranged that all seats can be removed in about 10 minutes. There are also eight dressing rooms for the use of the persons taking part in dramatic performances. The building contains a large restaurant and refreshment bar, and a ladies' parlor, as well as a smoking room for the men. An annex to the building contains 22 bowling alleys, 20 billiard tables, refreshment stands, etc. These, it is stated, are "always busy."

The bakers' local of St. Louis, Mo., whose amusement park has already been described, has a headquarters building adjoining the park. This building contains clubroom, auditorium (with stage), and reading room, besides a soft-drink counter and dining room.

The Chicago locals of the Amalgamated Clothing Workers have just finished the erection of a new building which makes generous provision for many forms of social and recreational activity. The locals had been accumulating a building fund since 1919, and provision has been made for maintenance expenses from surplus union dues; the building, in fact, was paid for before the construction work was begun.

The basement of this building contains a gymnasium large enough for class work, basket ball and indoor baseball, a handball court, 3 exercise rooms, a steam room, showers, lockers, 6 bowling alleys, 3 billiard tables, a visitors' gallery overlooking the bowling alleys and billiard tables, a buffet, and a kitchen. There will be a physical education department in connection with the gymnasium under the charge of a competent instructor. Physical education classes will be

formed, to which members will be admitted only after medical examination to determine the physical condition of the applicant. The first floor has space for five stores, the union employment exchange, a library, and an assembly hall. There is a very elaborate foyer two stories high. In a space on the second floor abutting upon the foyer, provision has been made for a dental clinic to serve the members of the union. The remainder of the building is devoted to offices.

At Rochester, also, much of the recreational activities are carried on in the union's own building, which is reported as having "ample facilities" for the promotion of all kinds of indoor sports.

PUBLIC-SERVICE RETIREMENT SYSTEMS

Summary of Public-Service Retirement Systems in European Countries

THE following is a summary of the most important points in the civil-service retirement systems in Austria, Belgium, Czechoslovakia, Denmark, France, Germany, Great Britain, Italy, Netherlands, Norway, Sweden, and Switzerland.[1]

Right to pension or to insurance benefits.—The right of civil-service employees to service, disability, and survivors' pensions, or to corresponding insurance benefits is recognized by all the above-named countries.

Types of systems and contributions.—(*a*) A system in which the employees do not contribute and the pensions are paid and expenses borne entirely by the public treasury might be held to be a true pension system. Such systems are in operation in Belgium, Great Britain, and the Netherlands, and in Germany for officials (*Beamte*) only. (*b*) A system in which the employees contribute either the entire cost or only a percentage, usually 50 per cent, is of the nature of social insurance, though it is often called, even in law, a pension system. Such insurance systems for civil-service employees are in operation in all of the above countries except Belgium, Great Britain, and the Netherlands. In France 6 per cent of the salary is contributed by employees and 9 per cent by the Government. In Italy the employees pay 6 per cent of their salary and the Government contributes each year the rest of the cost of operation. In Germany, for employees other than officials, 50 per cent of the necessary contributions are made by the employees and 50 per cent by the Government; the same proportions of the contributions are paid by the employees and the Government in Austria, and Czechoslovakia. In Denmark 3 per cent of the salary is contributed by employees and the remainder of the cost of operation of the system is contributed by the Government. In Sweden from 3 to 6 per cent of the salary is contributed by employees, the rest, approximately two-thirds of the cost of the operation of the system, being contributed by the Government. In Norway 10 per cent of the salary is contributed by employees and the remainder of the cost by the Government. In Switzerland 5 per cent of the salary and 4 monthly payments of any salary increase is paid by the employees, and 7 per cent of the salary, 5 monthly payments of any salary increase, cost of administration and any deficit is paid by the Government.

Conditions for retirement.—(*a*) The retirement age varies from country to country. It is 60 years in Austria, Great Britain, and

[1] The retirement systems of Great Britain and France were described in considerable detail in the Labor Review for January, 1928 (pp. 33–42), and those of Austria, Belgium, Czechoslovakia, Germany, and Switzerland in the issue for February, 1928 (pp. 47–73). A similar description of the systems in effect in Italy, Netherlands, Denmark, Norway, and Sweden is given on pp. 25 to 35 of this issue.

France, 65 years in Czechoslovakia, Belgium, Germany, Italy (after 20 years' service), and the Netherlands, 67 years in Sweden, and 70 years in Denmark, Norway, and Switzerland.

The retirement age, however, varies in the same country, in certain cases. For instance, in France, it is 60 years after 30 years' service, or 55 years after 25 years' service including 15 years' field service. In Denmark an employee is compelled to retire at 70 years of age, but at 65 years of age he acquires a pension right. In the Netherlands an employee who is honorably discharged at the age of 55 years, when he has rendered 10 years' service, is entitled to a pension. The retirement age for male employees in Norway is 70 years and for female employees 65 years, but for certain occupations requiring nervous strain and exposure to elements the retirement age is lower—68 years in State mines, etc.; 65 years in the State prison, post, telegraph and telephone services; 60 years for female employees in prison service and State medical establishments; 55 years for female telegraph and telephone operators; and 52 years in the State marine service. In Italy, after 40 years' service, there is no age limit.

(*b*) The required length of service for pension or insurance benefits varies still more from country to country. It is 10 years in Austria, Czechoslovakia, Germany (5 years for female employees), Great Britain, the Netherlands, and Sweden; 30 years in France (or 25 years including 15 years of field service) and Belgium; from 2 to 30 years in Denmark (full or maximum pension for 30 years' service; for shorter periods of service the pension is proportionally decreased); from 10 to 30 years in Norway (the size of pension varies proportionally to the years of service); 40 years' service, or 20 years' service at the age of 65, in Italy.

(*c*) In case of disability caused by accident or sickness in service or otherwise, usually the length of service is not considered, with the exception of the following countries: In France, 15 years' service is required when disability is caused outside of service; in the Netherlands 5 years' service is required if disability is caused in the service and 7 if disability is caused outside the service.

Retirement allowances.—The allowances vary according to the size of the salary or income from the service, to the length of service rendered, or to the amount of contributions made. In Austria the full allowance is 78.3 per cent, or approximately three-fourths of the salary, while in Belgium it is one-sixtieth of the average annual salary of the last 5 years and in field service one-fiftieth of such salary multiplied by the number of years of service rendered, with a maximum of three-fourths of the salary per annum. In Czechoslovakia the regular allowance, after 120 monthly contributions, amounts to from 180 to 900 crowns per annum for salary classes 1 to 6; 900 crowns plus from 1½ to 15 crowns for each monthly contribution for salary classes 7 to 16; in addition one-eighth of the contributions paid after the required 120 months' contribution. The pension allowance for male employees in Great Britain is one-eightieth of the average of the salary of the last three years multiplied by the number of years of service, plus a lump sum equal to one-thirtieth of such salary multiplied by the number of years of service, or one and one-half times the salary, whichever is smaller, and for female employees it is one-sixtieth of such

salary multiplied by the number of years of service, which is equal to one-half of the salary per annum after 30 years of service. In France, the allowance is from one-half to three-fourths of the average salary. In Germany the pension to officials is from thirty-five to eighty one-hundredths of the last annual income from service, and insurance benefits to employees are from 516 to 2,280 marks per annum. The pension in Italy is one-fortieth of the first 4,000 lire and one-sixtieth of the remainder of the average income from service of the last three years for each year of service—maximum nine-tenths of such income from service and minimum, 900 lire—and for 40 years' service the pension is four-fifths of such income from service. In Switzerland the allowance is from 15 to 70 per cent of the last annual salary, and in Denmark from two-tenths to forty-sixtieths of the annual income from service. Sweden provides pension to chiefs and other officials of from 7,296 to 8,796 crowns per annum, and to other employees, males from 1,320 to 6,996, and females from 1,236 to 6,684 crowns per annum. In the Netherlands for each year of service the allowance is 1.75 per cent of the average income from service for the last three years. In Norway for the lower salaries, from 1,000 to 6,000 crowns per annum, the pension amounts to 66 per cent of the highest annual salary, for salaries of 6,100 crowns the pension amounts to 65.7 per cent of such salary, and for salaries over 6,100 crowns this amount is gradually decreased by 0.3 to 54 per cent for the salary of 10,000 crowns or over.

Usually the disability allowance, when disability is permanent and caused by accident or sickness in service, is equal either to the full service pension or to the salary. In Great Britain (for accidental injury) it is equal to the salary, with a maximum of £300 per annum; in France it is from one-third to three-fourths of the salary, with a minimum of 1,500 francs per annum, or full service pension; and in Austria, Belgium, Czechoslovakia, Denmark, Germany (employees), Norway, Sweden, and Switzerland, it is equal to full service pension. In Italy, the disability allowance is one-fortieth of average income from service of last three years for each year of service, with a maximum of nine-tenths of such income from service and minimum of one-third of last annual salary for less than 20 years' service or one-half of such salary for 20 years' service or over, in any case 900 lire per annum; in the Netherlands it varies from 30 to 70 per cent of the average income from service for last three years; and in Germany (for officials) it may not exceed thirty-five one-hundredths of the income from service.

Survivors' allowances.—(*a*) Widow: In Great Britain, widows and orphans, where the employee died from injury in discharge of duty, may be granted an allowance not to exceed the salary of the deceased. In Italy, the widow and children are entitled to a pension equal to the following proportion of deceased employees' pension: Widow, 50 per cent; widow with children—one child, 60 per cent; two children, 65 per cent; three children, 70 per cent; four or more children, 75 per cent, with a minimum of 600 lire per annum. In Austria, Czechoslovakia, France, Norway, and Switzerland, the widow is awarded one-half of the deceased husband's pension; in Belgium, from 20 to 30 per cent of the deceased husband's salary (paid from special funds); in Germany, in the case of officials 40 per cent, and

of employees 60 per cent of the deceased husband's pension; in Denmark, from one-fifth to one-third of the deceased husband's income from service; in the Netherlands, 50 per cent of the first 2,000 florins and 40 per cent of the remainder of the basic income from service of deceased husband; and in Sweden, one-fourth of the deceased husband's pension.

(*b*) Widow's children: The children's allowance in France is 10 per cent of the pension of the deceased for each child under 21; in Austria, one-fifth of the widow's pension for each child under 21; in Belgium, from 2 to 10 per cent of the average salary of the deceased for each child under 18; in Czechoslovakia, one-fifth of the pension of the deceased for each child under 17; in Germany, for officials, one-fifth of the widow's pension for each child under 18, and for employees 50 per cent of basic retirement benefits of deceased for each child under 15; in Switzerland, 10 per cent of the annual salary of the deceased for each child under 18; in Denmark, for one child, 180 crowns; for two children, 330 crowns; for three children, 450 crowns; and for each child in excess of three 100 crowns per annum; in the Netherlands, 10 per cent of the widow's pension for each child under legal age; and in Norway, for one child 40 per cent, for two children 60 per cent, for three children 75 per cent, for four children 90 per cent, and for five or more children 100 per cent of the widow's pension. For provision for the children in Great Britain and Italy, see under "Widow."

(*c*) Full orphans: Great Britain (see "Widow"); for full orphans the allowance in France is 10 per cent of the pension of the deceased for each child under 21 plus proportionate share of widow's pension; in Austria, an undivided orphans' pension amounting to half of widow's pension; and in Belgium three-fifths of widow's pension for one orphan, four-fifths for two orphans, entire widow's pension for three orphans, plus 2 per cent of average salary for each child in excess of three under 18, maximum 10 per cent. Czechoslovakia pays two-fifths of the benefits of the deceased for each child under 17; Germany, for officials, one-third of widow's pension for each child under 18 and for employees 50 per cent of the basic retirement benefits of the deceased for each orphan under 15; Switzerland, 20 per cent of the annual salary of the deceased for each child under 18; Sweden, living expenses, schooling, and training of orphans under 21 (paid by the survivors' pension fund); and Italy, where there are not more than two orphans, one-third of deceased employee's pension; where three orphans, 40 per cent; where four orphans, 50 per cent; and where five or more orphans, 60 per cent, subject to a minimum of 500 lire per year. In the Netherlands this allowance is 20 per cent of the widow's pension for each orphan under legal age; and in Norway it is double the amount of pension given to widow's children.

Administration of pensions.—Civil-service pensions are administered by a special council or board, or office, under either the Treasury Department, as in Austria, Belgium, Denmark, France, Great Britain, Italy, and Sweden, or under the Department of Public or Social Welfare, as in Czechoslovakia and Norway, or by an independent State or national insurance office, as in Germany, or under a Federal council as in Netherlands and Switzerland.

Public-Service Retirement Systems in Italy, Netherlands and Scandinavian Countries

THIS is the third article on public-service retirement systems in foreign countries, and comprises part of the study on various retirement systems being made by the Bureau of Labor Statistics. The retirement systems of Great Britain and France were described in the Labor Review for January, 1928 (pp. 33–42) and those of Austria, Belgium, Czechoslovakia, Germany, and Switzerland in the issue for February, 1928 (pp. 47–73).

ITALY[1]

CIVIL-SERVICE retirement and pension legislation in Italy dates back to 1864, when, on May 12, a law was passed regulating civil-service retirement. This law was amended from time to time until the law of February 21, 1895, on the basis of which the entire system was consolidated. This law, in turn, has been amended by numerous subsequent decrees and instructions, especially during the postwar period, such as the royal decrees of October 23, 1919, November 21, 1923, and May 8, 1924. The decree of May 14, 1925, provides for reorganization of the central administration of civil-service retirement and pensions, while the decree of September 30, 1927, provides for codification of all laws and decrees relating to the civil-service retirement and pension system.

The principal provisions of the law of February 21, 1895, and subsequent amendments are as follows:

Employees Covered

ALL employees in the offices and establishments of the State are covered by the civil-service retirement and pension law.

Retirement Age and Length of Service

WHEN a civil-service employee has rendered 40 years' service, or when he has reached the age of 65 years and has rendered 20 years' service, he is entitled to retire with a pension.

Amount of Pension

THE pension is calculated on the basis of the average salary and allowances during the last three years of service. The amount of the pension is equal to one-fortieth of the first 4,000 lire of such income from service and one-sixtieth of the remainder for each year of service, with a maximum of nine-tenths of such income from service and a minimum of 900 lire per annum. An employee who has rendered 40 years' service is entitled to a pension amounting to four-fifths of such income from service per annum.

Disability Pension

IN CASE of permanent disability contracted either by accident or disease in service an employee is entitled to retire with a pension without regard to his age or length of service. Such a pension

[1] Corte dei conti del regno d'Italia, Codice delle pensioni, Rome, 1927; Ministero delle finanze, Disposizioni sullo stato giuridico degl'impiegati civili dell'amministrazione dello stato, Rome, 1924.

amounts to one-fortieth of the average income from service of the last three years for each year of service, and in any case not less than one-third of the last annual salary for less than 20 years' service nor one-half of such salary for 20 years' service or over. The disability pension may not exceed nine-tenths of the average income from service during the last three years nor be less than 900 lire per annum.

Lump-sum payment.—After 10 years' service, a lump sum is paid to an employee who is either disabled or has lost his position without loss of the right to pension, amounting to one-twelfth of the last annual salary for the first 4,000 lire and one-fifteenth of the remainder of the salary per year of service.

Survivors' Pensions

Widow and children.—The widow and children of an employee who has died after 20 years' service have a right to a pension equal to a certain per cent of the pension the deceased employee either was receiving or was entitled to receive at the time of his death, as follows: Widow, 50 per cent; widow with children—one child, 60 per cent; two children, 65 per cent; three children, 70 per cent; four or more children, 75 per cent. The pension of a widow with children must not be less than 600 lire per year. When the widow and all or any of her children or the children of a previous marriage of the deceased employee live apart, the pension is divided as follows: Of the amount of the deceased husband's pension which would be awarded a widow with children, 40 per cent to the widow and the remainder divided equally among the children.

Full orphans.—Where there is no widow, the orphans are awarded the following share of the deceased employee's pension: Not more than two orphans, one-third; three orphans, 40 per cent; four orphans, 50 per cent; five or more orphans, 60 per cent—the entire pension not to be less than 500 lire per year.

Children of a deceased woman employee are entitled to full orphans' pension.

Contributions

THE contribution of each employee amounts to 6 per cent of his income from service. The remainder needed for the operation of the system is contributed by the Government each year in the budget.

Administration

THE Ministry of Finance administers the civil-service retirement and pension system.

NETHERLANDS [2]

ON NOVEMBER 8, 1915, a State commission was appointed in the Netherlands to investigate the general conditions of civil-service retirement and pensions and to work out a project for regulations. As a result of the commission's report the pension law now in

[2] Staatsblad, No. 240, 1922, No. 293 and 307, 1923, and No. 216, 1925, Tekst van de Pensioenwet 1922, Alphen, N. Samsom, 1926; Rinnooij, H. A. J., De Pensioenwet 1922, met Toelichtingen, Alphen, N. Samsom, 1926, and Tweede Deel Uitvoeringsbesluiten, Alphen, N. Samsom, 1927.

force was passed on February 15, 1922, becoming a law on July 1, 1922. Subsequent amendments and decrees of June 23 and 30, 1923, and of May 28, 1925, relate to details and, in the main, to the administration of the law.

Employees Covered

THE law covers all employees serving in the offices and establishments of the State, Provinces and municipalities.

Retirement Age and Length of Service

AN EMPLOYEE who has reached the age of 65 years and is discharged after 10 years' service, or is retired upon his own request or dishonorably discharged after 15 years' service, is entitled to a pension. If he has reached 55 years of age, has had 10 years' service, and is honorably discharged, he is likewise entitled to a pension.

A minister retiring from service is entitled to a pension without consideration of the length of his service as minister. A consular officer is entitled to pension when he has served 35 years.

Amount of Pension

THE average of the income from service, in money and in kind (expressed in money value), for the last 3 years, or for the last 10 years, or for the number of years of service, whichever average is the highest, or if an employee has served less than 3 years the average of the shorter period, serves as the basis for the calculation of the pension.

The amount of the pension is equal to 1.75 per cent of the basic income from service for each year of service. The pension to a minister is equal to one-twelfth of the basic income from service. If he served in other positions before he was appointed minister then the pension to which he is entitled for his service in other positions is added to his pension as minister.

The pension to a minister may not exceed 6,000 florins per annum, and that to other civil-service employees may not exceed 4,000 florins per annum.

Disability Pension

WHEN a civil-service employee is permanently disabled for service by causes other than accident or sickness in service if he has had seven years' service or when he is disabled by accident or sickness in service if he has had five years' service he is entitled to a disability pension. Disability pensions may not be less than 30 nor more than 70 per cent of the basic income from service.

Survivors' Pensions

WIDOW'S PENSION.—The widow of a deceased employee, if the marriage took place before the latter reached the age of 65 years, is entitled to a pension amounting to 50 per cent of the first 2,000 florins and 40 per cent of the remainder of the basic income from service of her deceased husband.

Orphans' pensions.—The widow's children who are under legal age are each entitled to a pension of 10 per cent of the widow's pension per annum. Every full orphan under legal age is entitled to 20 per cent of the widow's pension per annum. Foster, adopted, and legitimated children, when adoption and legitimation took place before the civil-service employee reached the age of 65 years, are counted as orphans.

Contributions

THE State, provincial and municipal governments contribute to the employees' pension fund 10 per cent and to the widows' and orphans' fund 5½ per cent of the average of the total basic incomes from service of their respective employees, as determined on March 15 and September 15 each year.

Contributions to the employees' pension fund of not more than 3 per cent and to the widows' and orphans' pension fund of not more than 5½ per cent of their basic salaries may be required of the civil-service employees, but the cost has been borne by the public treasury.

Administration

THE civil-service employees' pension fund and the widows' and orphans' pension fund are administered by a pension council (*Pensioenraad*) consisting of three members, and a secretary and an adviser appointed by the Queen.

DENMARK [3]

THE present public-service retirement and pension system in Denmark is based upon law No. 126, enacted on June 27, 1927. The second chapter of the law contains general provisions relating to civil-service retirement and pensions, while the other chapters relate to details and measures of a temporary nature, such as cost-of-living and locality allowances.

Employees Covered

EVERY Government employee is entitled to a pension for himself and for his surviving widow and children. Permanent employees in the service of Parliament (*Rigsdag*) or of those Government institutions whose receipts and expenditures are fixed by law also have the right to a pension, as do the ministers at the head of the Government departments, after they have served one year.

Retirement Age and Length of Service

RETIREMENT is obligatory at the end of the month in which an employee reaches the age of 70 years, but an employee is entitled to retire with a pension when he has reached 65 years of age. Thirty years' service entitles the employee to the maximum pension.

[3] Lov (Nr. 126—1927) om Statens Tjenestemænd, Christiansborg, den 27. Juni 1927, Copenhagen, 1927; unpublished material furnished to the Department of Labor through the Department of State.

Amount of Pension

THE PENSION is calculated on the basis of length of service (called "pension age") and the income from service of the employee. The income from service taken as the basis for calculation of the pension includes the basic salary, with any increases, and payments in kind, such as the use of land, free dwelling, and fuel, allotted as a part of salary. For each specified number of years of service the proportion of the income from service given as a pension is as follows:

Over 2 and up to 4 years, two-tenths.
Over 4 and up to 7 years, three-tenths.
Over 7 and up to 10 years, four-tenths.
Over 10 and up to 15 years, five-tenths.
Over 15 and up to 17 years, thirty-one sixtieths.
Over 17 and up to 19 years, thirty-two sixtieths.
Over 19 and up to 21 years, thirty-three sixtieths.
Over 21 and up to 23 years, thirty-four sixtieths.
Over 23 and up to 25 years, thirty-five sixtieths.
Over 25 and up to 27 years, thirty-six sixtieths.
Over 27 and up to 28 years, thirty-seven sixtieths.
Over 28 and up to 29 years, thirty-eight sixtieths.
Over 29 and up to 30 years, thirty-nine sixtieths.
Over 30 years, forty-sixtieths.

No pension may exceed 8,000 crowns annually.

An employee whose position is abolished after he has served 30 years is entitled, when no other suitable position is offered him with at least the same income from service, to continued pay for five years.

Payment of the pension ceases: (*a*) When the pensioner is again engaged in a position entitling him to pension; (*b*) when it is proved that the disability caused by accident or sickness has been removed but the employee refuses to accept permanent reinstatement in a suitable position with the same or a higher salary; (*c*) when a pensioner, without official permission, has entered the service of a foreign government; (*d*) when he establishes his residence abroad without the knowledge of his official chief; (*e*) when for three years he has not claimed his pension, without later being able to prove legal hindrances; (*f*) when he is found guilty of a dishonorable act.

Disability Pension

IF AN employee during the performance of his duties is so injured as to necessitate his permanent retirement from service, he is entitled, regardless of his age or length of service, to a pension of two-thirds of the income from service last received by him.

Survivors' Pensions

WIDOW'S PENSION.—The widow of a deceased employee is entitled to a pension of one-fifth of the income from service of her deceased husband if he, at his death, was not entitled to pension or had not had five years' service; or one-third of such income if he had over five years' service, or had died in the execution of his duty or as a result of injury in service, or had been pensioned for the same reason.

The widow's pension ceases: (*a*) When the widow contracts a new marriage; (*b*) when she, without official permission, enters the service of a foreign government; and (*c*) when she is found guilty of a dishonorable act.

Orphans' pensions.—For her children (including stepchildren and adopted children for the support of whom her deceased husband was responsible) the widow is entitled to the following pension additions: For one child, 180 crowns annually; for two children, 330 crowns annually; for three children, 450 crowns annually; for each child in excess of three, an additional 100 crowns annually.

Contributions by Employees

EACH employee contributes 3 per cent of his salary or income from service, which is deducted upon each payment of salary. In case an employee resigns or is dismissed without a pension, his contributions are refunded without interest.

Administration

PENSIONS are paid by the Treasury Department unless existing or future regulations direct otherwise.

As the civil-service retirement and pension system in Denmark, above outlined, has been only recently put into effect, no report has been made on its operation and no statistics connected with it are available.

NORWAY [4]

THE civil-service retirement and pension system in Norway was reorganized on the basis of the law of July 28, 1921. Subsequent regulations and instructions, notably those of April 28, 1922, October 12 and December 15, 1923, November 28, 1924, and December 19, 1927, relate principally to the administration of the law.

Employees Covered

THE law covers all employees in the offices and establishments of the State and those employees in the offices and establishments of provincial and municipal governments who are brought under the State retirement and pension system by royal decree; for instance, the law covers all school-teachers, though the vast majority of them are under the jurisdiction of the provincial and municipal governments.

Retirement Age and Length of Service

WHEN a male civil-service employee has reached the age of 70 years or a female employee the age of 65 years, he or she is entitled to retire with a pension. For certain occupations requiring nervous strain and exposure to the elements, however, the retirement age varies. In the State mines, gas works, fisheries, electrical works,

[4] Lov om Statens Pensjonskasse, av 28. juli 1921, Oslo, 1921; Norway, Hovedstyret for Statsbanene, Circulære nr. 241, Vedtekter for Statsbanenes Pensjonskasse, Oslo, 1923; Arsberetning for 1925 for Statens Pensjonskasse, Oslo, 1926; Norway, Socialdepartementet, Utkast til Lov om forandringer i Lov om Statens Pensjonskasse av 28. juli 1921, Oslo, 1927, and Om omordning av Statskassens tilskudd til Statens Pensjonskasse, Oslo, 1926.

shipyards, port works, ammunition plants, etc., it is 68 years; in the State prisons (for prison guards), in the State post, telegraph, and telephone service, etc., 65 years; for female employees in the State prisons, correction houses, State medical establishments, etc., 60 years; for female telegraph and telephone operators, 55 years; and in the marine service, 52 years.

For the minimum pension at least 10 years, and for the maximum pension 30 years, of service is required. If an employee who has served 10 years retires before he has reached the age of 70 years—for instance, at the age of 65 years—he is entitled to a deferred pension; that is, the pension does not begin until he reaches 70 years of age.

Amount of Pension

THE amount of the pension varies according to the salary received and years of service. The highest annual salary received by the employee serves as the basis for the calculation of his pension, the minimum salary being 1,000 crowns and the maximum 10,000 crowns per annum.

The pension scale represents 90 salary bases for the calculation of the pension. Beginning with the minimum of 1,000 crowns per annum each succeeding base is 100 crowns higher than the preceding until the maximum of 10,000 crowns per annum is reached. For the lower bases—from 1,000 crowns up to 6,000 crowns—the pension for 30 years' service is equal to 66 per cent of the basic salary; for 6,100 crowns it is 65.7 per cent; and this percentage is decreased by 0.3 for each succeeding base to the maximum of 10,000 crowns, for which the pension is 54 per cent.

For service of less than 30 years a proportionate pension is paid; for instance, the pensions on the minimum basic salary of 1,000 crowns and on the maximum basic salary of 10,000 crowns for each number of years up to 30 years of service, as calculated, are as follows:

MINIMUM AND MAXIMUM PENSIONS FOR SPECIFIED YEARS OF SERVICE

Years of service	Minimum annual pension	Maximum annual pension	Years of service	Minimum annual pension	Maximum annual pension
	Crowns	*Crowns*		*Crowns*	*Crowns*
15 years and less	330.00	2,700	23 years	506.40	4,140
16 years	352.80	2,880	24 years	528.00	4,320
17 years	374.40	3,060	25 years	550.80	4,500
18 years	396.00	3,210	26 years	572.40	4,680
19 years	418.80	3,420	27 years	594.00	4,860
20 years	440.40	3,600	28 years	616.80	5,040
21 years	462.00	3,780	29 years	638.40	5,220
22 years	484.80	3,960	30 years	660.00	5,400

Pensions on all salary bases between the minimum and maximum are graduated according to the years of service approximately in the same proportion.

Disability Pension

MUCH latitude is left by the law to the pension board in the matter of awarding disability pensions, but certain principles are followed. In case of permanent disability caused by accident

or sickness in service a pension equal to the full service pension is awarded. If upon investigation it appears that permanent disability was due to causes other than accident and sickness in service, the award is usually three-fourths of the full service pension.

Survivors' Pensions

WIDOW'S PENSION.—A widow's pension is equal to 50 per cent of her deceased husband's pension. If she remarries she loses her pension rights.

Orphans' pensions.—The pension for the widow's children is as follows: For one child, 40 per cent of the widow's pension; for two children, 60 per cent; for three children, 75 per cent; for four children, 90 per cent; and for five or more children, 100 per cent. Full orphans receive the same percentage of their deceased father's pension. Orphans' pensions are paid until they reach 18 years of age. Foster, adopted, and legitimated children, if marriage or their adoption and legitimation took place before the employee reached the retirement age, are counted as orphans.

Contributions

CIVIL-SERVICE employees contribute 10 per cent of their salary or income from service to the pension funds. The Government guarantees the payment of pensions and contributes the balance of the cost each year.

Pension Funds and Their Administration

THERE are a number of separate State pension funds—the employees' pension fund (*Statens Pensjonskasse*), the widow's pension fund (*Enkekasse*), the State railway employees' pension fund (*Stotsbanenes Pensjonskasse*), and other smaller funds—but all these funds operate under the same laws and regulations and are under the same central administration. The funds are administered by a pension board under the general direction of the Ministry of Public Welfare. The board consists of a general director (chairman), two directors, a treasurer, a secretary, and a chief physician, all of whom are appointed by the King.

SWEDEN [5]

THE law of October 11, 1907, with some subsequent modifications, contains the principal provisions for civil-service retirement and pensions in Sweden.[6]

Employees Covered

THE retirement and pension law applies to all State office holders and employees provided for in the regular State budget, with the exception of certain groups of employees whose retirement is governed

[5] Svensk Författnings-Samling, Nr. 85, 1907, and No. 276–279, 1925; Sweden, Statskontorets, Utdrag ur de under Kungl. Statskontorets förvaltning stående fonders och diverse medels räkenskaper för budgetåret 1926–27, Stockholm, 1927; and unpublished material furnished to the Department of Labor through the Department of State.

[6] There are a number of regulations and decrees concerning retirement and pensions of certain groups of civil-service employees; for instance, in the State postal, telegraph, railway, and water power services. Among these regulations and decrees, perhaps the most important are: Salary regulation of June 19, 1919, somewhat modified by the law of June 4, 1920; public land service regulation of June 22, 1920, modified by law of June 12, 1925; royal decree of June 9, 1922, relating to pilotage and lighthouse service; salary regulation of May 21, 1926, and royal decree of June 18, 1926, relating to State and provincial medical service.

by special regulations and royal decrees, and those civil-service employees who are insured by the General Social Insurance Office.

Retirement Age and Length of Service

AS a rule, retirement is obligatory at the age of 67 years. If, on reaching such age, a civil-service employee has served at least 10 years, he is entitled to an annual pension, but must have served a certain number of years, generally 35, to receive a full pension. If, for causes other than disability contracted in service, an employee leaves the service before he has completed 10 years' service, he is not entitled to a pension and his contributions are not refunded.

Amount of Pension

THE basis for the calculation of the annual pension is two-thirds of the last annual salary, the amount being generally stated either in the current State budget or in a special regulation or decree, but if not so stated the whole of the last annual salary serves as the basis for the calculation of the pension, the maximum being 6,000 crowns per annum.

A full pension is equal to the basic salary ascertained as above stated. If the number of years' service are fewer than the specified maximum but amount to 10 or more, the pension granted is proportional to the years of service, so that, for example, an employee who is entitled to a full pension after 35 years of service but has served only 27 years is entitled, when he retires, to a pension equal to twenty-seven thirty-fifths of the basic salary.

The maximum amount of the annual pension granted to civil-service employees (which is the basis for calculation of the pension) was fixed by the laws of 1907 and 1920, and by the royal decree of June 12, 1925 (No. 277). Those of chiefs and other officials are, by salary grades, as follows:

Grade:	Crowns	Grade:	Crowns
First	7, 296	Third	8, 496
Second	7, 896	Fourth	8, 796

The maximum pensions of other civil service employees of the various salary grades are:

Grade:	Men (crowns)	Women (crowns)	Grade:	Men (crowns)	Women (crowns)
First	1, 320	1, 236	Sixteenth	3, 240	3, 036
Second	1, 404	1, 320	Seventeenth	3, 444	3, 240
Third	1, 476	1, 404	Eighteenth	3, 684	3, 444
Fourth	1, 560	1, 476	Nineteenth	3, 924	3, 684
Fifth	1, 644	1, 560	Twentieth	3, 924	3, 684
Sixth	1, 716	1, 644	Twenty-first	4, 200	3, 924
Seventh	1, 824	1, 716	Twenty-second	4, 476	4, 200
Eighth	1, 920	1, 824	Twenty-third	4, 764	4, 476
Ninth	2, 040	1, 920	Twenty-fourth	5, 076	4, 764
Tenth	2, 160	2, 040	Twenty-fifth	5, 400	5, 076
Eleventh	2, 304	2, 160	Twenty-sixth	5, 724	5, 400
Twelfth	2, 436	2, 304	Twenty-seventh	6, 036	5, 724
Thirteenth	2, 640	2, 436	Twenty-eighth	6, 360	6, 036
Fourteenth	2, 844	2, 640	Twenty-ninth	6, 684	6, 360
Fifteenth	3, 036	2, 844	Thirtieth	6, 996	6, 684

Disability Pension

IN CASE of retirement for permanent disability caused by accident or sickness in the service an employee may be awarded a pension equal to the full service pension.

Survivors' Pensions

IN MANY cases the survivors of a civil-service employee are taken care of by the General Social Insurance Office. But in cases where the widow is not insured, she receives a pension amounting to approximately one-fourth of the pension her deceased husband was receiving or to which he was entitled at his death. If the orphans are not entitled to benefits from the General Social Insurance Office, they receive a pension until they reach 21 years of age in amounts varying with the circumstances and the decision of the pension board. The orphans' pensions and the widow's pension together may not exceed the pension of the deceased employee. The cost of living, schooling, and training of full orphans are paid by the survivors' pension fund until they reach the age of 21 years, or until they are able to earn their own living.

Contributions

EVERY civil-service employee is required to make annual contributions (*pensionsavgift*), varying, as a rule, between 3 and 6 per cent of the basic salary, which is paid into the civil pensions fund. It is calculated that when the pensions service reaches the stage where the income of the pension fund just covers its expenses, the contributions of the employees will represent approximately one-third of the pensions.

The annual contributions of the civil-service employees of the various salary grades to the pensions fund are as follows:

CHIEFS AND OTHER OFFICIALS

Grade:	Crowns
First	438
Second	474
Third	510
Fourth	528

OTHER CIVIL-SERVICE EMPLOYEES

Grade:	Crowns
First	36
Second	39
Third	42
Fourth	45
Fifth	48
Sixth	51
Seventh	57
Eighth	63
Ninth	69
Tenth	75
Eleventh	84

OTHER CIVIL-SERVICE EMPLOYEES—con.

Grade:	Crowns
Twelfth	90
Thirteenth	102
Fourteenth	114
Fifteenth	129
Sixteenth	141
Seventeenth	156
Eighteenth	174
Nineteenth	192
Twentieth	192
Twenty-first	213
Twenty-second	234
Twenty-third	255
Twenty-fourth	279
Twenty-fifth	303
Twenty-sixth	330
Twenty-seventh	354
Twenty-eighth	378
Twenty-ninth	399
Thirtieth	420

Civil-service employees who are insured by the General Social Insurance Office do not receive a civil-service pension and do not con-

tribute toward it, but are required to contribute to the civil-service survivors' pension fund such sums as are assessed by the board in charge of this fund.

Pension Funds and Their Administration

THERE are two pension funds, one for civil-service employees and the other for their survivors (called "fonden för familjepensionering"). Both funds are administered by special boards under the authority of the Ministry of Finance. The members of the pension board for employees are appointed by the King. The board for the survivors' fund consists of five members, of whom the chairman and managing director are appointed by the King and three members are appointed by 60 electors chosen by the contributors to the fund.

Financial Standing of Pension Funds

THE financial standing of the civil-service pension funds during the fiscal year 1926–27 was as follows:

Employees' pension fund

	Crowns	Crowns
Balance on hand		21, 018, 248. 55
Income:		
Interest	1, 105, 421. 44	
Employees' contributions	1, 698, 640. 78	
Total income		2, 804, 062. 22
Expenses: Pensions and other		335, 292. 26

Survivors' pension fund

Balance on hand		110, 265. 83
Income:		
Interest	7, 359. 99	
Employees' contributions	127, 812. 03	
Total income		135, 172. 02
Expenses: Pensions		1, 172. 35

PRODUCTIVITY OF LABOR AND INDUSTRY

Trade-Union Press on Displacement of Labor by Machinery

LABOR'S dread of the increasing displacement of men by mass production machinery is reflected in the trade-union press.

The following excerpts from official labor organs give some indication of this growing apprehension and of the realization of the need of meeting this problem in a constructive way rather than by futile reactionary opposition to technical progress.

A Key Problem for Trade-Unionists

IN THE face of all the prosperity in the United States, it would seem to look at times as if the workers of this country were up against "as serious a problem as they ever have been called upon to solve." This is the conclusion reached in the Railroad Trainman of January, 1928 (p. 65), after a consideration of unemployment resulting from the increasing mechanization of industry.

Some of the premises to this conclusion are:

> The increase in the use of machinery and production is not appreciated by any of us. The use of improved appliances comes along gradually; men and women are displaced and in certain instances absorbed by other employments, but the rapid development of machinery in the past few years has thrown so many men and women out of employment that it is impossible for other employments to absorb them and as a result in what is regarded as among the most prosperous periods in the history of the United States there are thousands of men and women heretofore gainfully employed who are walking the streets in search of a job.
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> * * *
>
> The fact that employees to-day are receiving more money for what they do than they ever did before does not mean a thing to the employee who has no job and no prospect of getting any.

Luxury Versus Unemployment

IN DISCUSSING "The new era of luxury and unemployment" the Lithographers' Journal of February, 1928, says:

> President Coolidge's forecast of the future, in which he sees a new era of luxury coming, as a result of mechanization and mass production, is a most fascinating and pleasing one. There is no reason why such an era should not develop. Machinery produces wealth in such superabundance as to make possible a life that should be one grand sweet song of plenty and leisure for all. And the tendency is to multiply indefinitely the possibilities of invention in this direction.
>
> But it does not necessarily follow that because machinery makes possible such great social advancement, this advancement will automatically take place. * * *
>
> Machinery, by causing unemployment, makes competition for jobs among the workers more acute. The result is wage reduction. Logically, in those industries where machine developments are largest there also are wages lowest. In lumber, packing, steel, autos, coal, weekly wages range from $17.77 to $29.45. As precursors of "a new era of luxury" these weekly wages are not encouraging.
>
> There is something wrong with a social system that acts in such a perverse manner. What is it?

Horsepower and Purchasing Power

REFERRING to the statement by the United States Commissioner of Labor Statistics that "only human beings buy; horsepower has no purchasing power; an electric truck has no cost of living, at least no family to support"—the Quarry Workers' Journal of March, 1928, declares:

This is a protest against the senseless use of machinery by employers to produce more commodities with ever fewer and fewer workers.

Many people overlook the fact that labor-saving machines are introduced primarily to increase profits. But oftentimes they defeat their very purpose, for who will buy the increased product? Surely not working men who are out of jobs or badly underpaid. And who else is there to buy? Mr. Capitalist can not possibly consume all the coal, clothing, etc., his big machines turn out. * * *

Labor's demand to share in the benefits derived from machine production is not only sound from the producer's standpoint. It is the only basis upon which the machine may be made to serve the mass of the people instead of only the selfish ends of the rich.

The Impermanence of Crafts

UNDER the caption "Never was there such rapid change," the Bridgemen's Magazine of March, 1928, states that "electric wire and wireless transmission mean more than can with any accuracy be forecast. They mean very definitely the displacement and the replacement of men in employment."

It is recorded that of a given number of men displaced in one semibasic industry within the year, two-thirds of that number found employment in servicing the product for the creation of which they were no longer needed. Organization problems of the most complex nature are bound up in such industrial upheavals.

Time was when the electrician was known as a man who strung wires. Time may easily be when he will no longer know what wires look like.

The old frontiers of the land-living age have been conquered, but new frontiers of science, invention, and industrial change stretch out before us in limitless expanse. * * *

The world has never known an era of change so rapid and so filled with meaning for the human race.

That institution which does not keep its eyes open and its brain alert to-day is doomed to death and decay.

An editorial on "Machinery development" in the Shoeworkers' Journal of March, 1928, suggests the instability of jobs in shoe manufacture.

None of us know what the future holds in store. Our industry is served by a large number of supply houses, many of which are continually offering new things to improve, simplify, or economize shoemaking.

Changes are going on all the time and any shoe factory that excludes the new ideas will be old fashioned in a short time. * * *

Experience should have taught us the folly of opposing new things. If they are poor our opposition is not necessary, and if they are good they will succeed, in spite of any opposition we can offer.

It is possible that we are on the eve of revolutionary changes in shoe machinery. Just now a staple lasting machine is being introduced. We hear of automatic shoemaking machines, now running experimentally, in which each shoe making operation is performed automatically by jacking the shoe and touching a button. * * *

All of these things should suggest to each of us, and to all of us collectively, that we should "watch our step" and try to avoid making the mistake of resisting progress.

How Are Machine-Supplanted Workers to be Supported

UNDER the title "Are we overproducing?" a writer in the Locomotive Engineers' Journal of February, 1928 (p. 133), says in part:

More powerful machinery with great efficiency, supplanting for the time being smaller units of like character, brings about economy. But in the ultimate lies the question: Will not our economic loss be greater as the result of supporting workers made before the more efficient and powerful machinery came?

Reviewing the development which has taken place in the field where we are most deeply concerned, there stands out preeminently the capitalization of brains and ingenuity; the carrying out of ideas for "unit operation." * * *

The editor of the Encyclopedia Brittannica has referred to the interval since the beginning of the World War as the "short and tremendous period" in which "there has occurred a universal revolution in human affairs and in the human mind." Obviously this is true, and in our revolution provision must be made to care for the unemployed or, better still, insure steady and gainful employment for all. Does it not reasonably follow that shorter hours is the only adequate solution of the problem where one locomotive is more or less hauling it all?

The following quotations are from the Journal of Electrical Workers and Operators for March, 1928:

Will American industry commit suicide?

Has American industry reached an impasse? Is the whole present mode of production in America on trial for its life? Is our highly powered industrial machine careening along on a career that is destined to furnish, not necessities and the comforts of life, but hardship, unemployment, and poverty for millions?

These questions sound sensational. Yet they are set down in a conservative spirit, with no intent to shock, or misstate.

Building the human machine

* * * When Americans elected to mechanize industry, and to build what may prove to be a Frankenstein, they are answering some inherent urge to create. There is something irreparable and inevitable in the industrial society we are building; and nothing in this number of the Electrical Workers' Journal should be construed as being reactionary, melancholy, or regretful.

It was also apparent a year ago that the new technological process, the widespread use of automatic machinery, and mass production, was creating a great surplus of unemployed workers, and this journal said so * * * . We have urged the strengthening of unionization all along the line as a kind of antidote against too much standardization of human lives and minds, as well as for the part unions play in orderly industry. But we predict that more drastic changes in industrial policy are needed, and will come, if we are to escape the bitter consequences of machine processes. The hopeful sign in the present evil hour is that everyone seems struggling honestly to find some solution to the situation.

In the Commercial Telegraphers' Journal for March, 1928, there appears the following:

The machine fetish

Out of the late war came the chemist and the inventor with glowing dreams of displacing all labor and freeing capital from its bondage. They did not see that, unlike labor, the machine did not consume its own production. * * *

The first effects will be felt by labor in finding its market curtailed by the narrowing field of demand for manual effort, causing unemployment and misery for the working man and his family. But, as unemployment destroys his purchasing power, overproduction will get in its ruinous work upon capital. * * *

Unlike the workmen, machinery can not be thrown upon its own resources in time of depression. It must be sheltered and cared for or it becomes capital lost, while prolonged idleness may result in its devouring the master it was to serve.

Increased Unemployment Due to Mass Distribution

A WRITER in The Free Voice of the Amalgamated Food Workers of April 1, 1928, predicts that in a few years mass distribution will combine with mass production to increase the expanding army of more or less permanently jobless workers.

He calls attention to the attacks being made from various quarters on the waste of distribution and to the report that the annual sales of 37 big chain-store systems, including mail-order establishments, have reached over $2,000,000,000, and declares that "labor should ask itself whether the logical agency for this new development is not consumer cooperation?"

Further Mechanization of Industry Inevitable

JUSTICE, the weekly publication of the International Ladies' Garment Workers' Union, carries the following paragraphs in its March 16, 1928, number:

Immigration was restricted. At this the manufacturers took real fright. * * * They spat on their hands and went to it. Money was poured into research, machine design, and invention. Automatic machinery began to be manufactured at an accelerated rate. At first these machines replaced the man power that was unobtainable. But there was no earthly reason for stopping at that point, once the impetus was felt and the prospective cost reductions seen. And if one manufacturer felt inclined to stop, there were others to continue cutting their prices thereby until he was driven to the wall or to emulation of their methods. All had to follow suit to survive. Automatic machinery began to replace the men who were employed.

These men were released—with literally no place to go. Other industries were increasing production—also not with new hands but with new machinery. * * *

We must not condemn mechanization on these grounds. It is as inevitable as the expansion of knowledge—and condemnation could do nothing to stem it. * * *

Mechanical progress must be made to serve labor as well as capital; now it is being accomplished more and more at the expense of labor.

Problem Must Be Solved Constructively [1]

THE attitude of William Green, president of the American Federation of Labor, on so-called "technological" joblessness is shown in his recent address at the University of Michigan.

At the present moment the Nation is confronted with an intensified unemployment problem. * * * There has been some slowing up in both production and consumption. There has been a decline in buying and naturally this was followed by a reduction in community output. This slight economic dislocation was noticeable during the late summer and early fall of 1927. It has continued, increasing in proportion, until the present peak of unemployment was reached.

The introduction and use of improved machinery has affected the situation to some extent. * * * We know that the development of new industries has created a demand for additional workers, consequently many thousands who would be unemployed otherwise have been able to find employment in the newer industries. Many of these were unskilled workers who were able to render service in mass-production industries.

In the survey made of this situation we are impressed by the fact that while we could not interfere with industrial progress and scientific advancement we will be confronted with the problem of displacement in a most acute form. When these new industries reach the point of saturation a very serious problem of continual displacement of men through the use of improved machinery must be constructively met and settled.

[1] The Elevator Constructor, Brooklyn, March, 1928, p. 4.

Limiting Production to Market Demand

THE desirability of each manufacturer's limiting production to actual market demand, in order to avoid the creation of industrial depressions, is emphasized by Thomas C. Sheehan, president of the Durham Duplex Razor Co., writing in the Magazine of Business (Chicago) for February, 1928.

Referring to the experience of his own company, the writer states that, although practically every item entering into both the producing and selling ends of the business costs more than it did 15 years ago, manufacturing costs, measured in percentages or per unit of product, have declined because of the greater speed and facility with which goods are produced. A man who honed 500 razor blades a day in 1913 and thought he was doing well, now is able to hone with machinery as many as 32,000 blades in a day, and the blades are better. The company has recently added to its product steel table knives of a quality which heretofore, it is reported, came largely from Sheffield, England, where high-grade cutlery has been made for many years. It was formerly thought that a great deal of skill was required to fashion Sheffield cutlery, and yet the writer says that an untrained worker by the use of machinery can make more and better knives in one day than the skilled craftsman could produce in two weeks.

In view of the marvelous increases in the speed of production or in the capacity of a given plant to turn out finished merchandise, the writer believes that the increase of material and labor costs since 1913 "makes little difference," since "the increased output per unit not only absorbs the higher manufacturing cost but, what is more important, it has also been absorbing much of the increased cost of distribution." However, increased production has opened up new difficulties.

> Management now fully realizes, if it did not before, that production is not an end in itself. Goods are produced to be sold. Manufacturing merchandise faster than it can be sold is one of the principal causes of the increase of competition and, of course, competition is the primary influence back of the greater cost of distribution.
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> When the lanes of distribution are congested with goods—as they have been a good deal of the time since 1919—it naturally requires much more selling effort on the part of manufacturers to get rid of the glut. This augmented selling effort cuts in heavily on the producer's share of the consumer's dollar. Before the war, manufacturers, taking them as a whole, got nearly 60 cents of the consumer's dollar. Now they get only about 40 cents. Distribution has absorbed the difference.
>
> Briefly, the problem that business is up against is: We have solved the difficulty of higher labor and material costs by increasing our production efficiency, but because of our greater productiveness we are turning out more merchandise than can be sold profitably.

When a manufacturer produces faster than he can sell, merchandise piles up in his warehouse, wholesalers and retailers become overstocked, and consequently the rate of turnover of both manufacturer and distributor is slowed down. In order to get rid of his surplus product the manufacturer may abandon sound business practices and offer his goods at bargain prices to department stores, chain stores, mail-order houses, and buying syndicates, thus antagonizing his regular customers and perhaps forcing them to sell their stocks also at bargain rates. The reaction hurts the manufacturer's business and he may be impelled to close his plant or put it on a part-time

basis, which naturally curtails the buying power of his factory employees, affects other businesses, and perhaps eventually results in an industrial depression. "If manufacturers would not produce more than the market is able to absorb, depressions would be few and far between."

To keep goods from piling up the writer suggests that manufacturers "should not stop selling when their wares reach the wholesaler but must continue their efforts until the consumer has been reached." In other words, the stock must be kept moving from the time it leaves the manufacturer until it has passed through the hands of the wholesaler and the retailer to the ultimate consumer.

To make possible such an even flow of goods, it goes without saying that a manufacturer must not overproduce. If there is a proper correlation between his output and his "consumer sales," his production has to be gauged to achieve this balance. That is where many manufacturers lose courage. It is so easy to produce with modern machinery, as I have already pointed out, that it takes nerve to regulate this production.

Of course, a machine can not be slowed up or the output of a workman cut down. But it is possible to operate fewer machines and to employ fewer workmen. If 50 workmen can do to-day what it took 500 workers to do before the war, and those 50 workers are able to turn out more goods than can be sold, why is it not better to cut down the number of workers to 25 and give these 25 steady employment? In this way the production cost per unit is not increased as it would be if it were attempted to regulate production by slowing down the speed of the whole factory.

The discontinuance of warehousing is also recommended, for if a manufacturer is storing goods he is apt to be overproducing, or at least is running the danger of accumulating a surplus, and if wholesalers and retailers are piling up goods in their warehouses they are overbuying.

Reduction of Grain-Harvesting Costs by Use of Combined Harvester-Thresher

THE costs and advantages of combine harvesting of grain are described in a recent press release of the United States Department of Agriculture. This method of harvesting is said to be growing in popularity owing to its relative cheapness. "After allowing customary rates for labor, fuel, repairs, and tractor use, the per acre cost of harvesting and threshing with the combine is approximately $1.50, compared with $4.22 where the binder is used and $3.36 where the header is used on large acreages." However, the original cost of the combines is high and this deters many farmers from buying them, although thousands of farmers east of the Rockies are reported to have decided that money spent on them is a good investment. Prices range from about $1,000 for the small-sized combine to $2,500 for the larger units, and the average life of a machine is estimated by the farmers to be from 8 to 10 years. On this basis, the annual replacement charge on a 10-foot combine is $125 to $160, if the average purchase price is $1,260. On a 15-foot combine costing $2,080 the annual replacement charge is about $210 to $260. Repair expense is also greater on the combine than on other machines. The annual replacement charge for a binder is only about $22.50 and for a header about $13.30.

Displacement of Hand Labor by Machinery in Cotton Harvesting

MECHANICAL harvesting of cotton is now well established on farms in northwestern Texas, according to a recent press release of the United States Department of Agriculture. With the assistance of agricultural agencies, the farmers of northwestern Texas devised the cotton sled or stripper. There are two principal types of sleds used—the finger and the slot, which are described as follows:

> On the finger type of sled the front end of the sled box either is open or has a sufficient opening for the stripper fingers which are attached to the front of the sled. The stripping action is somewhat the same as that of stripping the leaves from a small branch of a tree by drawing it through the fingers of one's hand. The slot type harvester differs from the finger type in that the stripping is done by a narrow slot which runs through the center of the sled from front to rear. Toward the rear of the machine the slot becomes narrow and slopes upward so that the cotton is stripped from the stalk.

These sleds are commonly drawn by two horses and operated by one or two men. In northwestern Texas the finger type of sled is used to a greater extent than the slot type because of the small stalk growth of the cotton plant in this area. However, both types are said to be very effective, well-constructed homemade sleds often gathering as much as 95 per cent of the cotton from the plant.

Cotton harvested in this way can be handled by the ginner, through improvements in ginning machinery. Sledded cotton usually contains a considerable quantity of trash and immature bolls, which increase the ginning charges and lower the grade, but it is reported that under favorable harvesting conditions sledded cotton often can not be distinguished from snapped cotton after it is ginned. Several companies are experimenting with cleaners for farm use, the perfection of which it is hoped will extend the use of the cotton sled.

Much progress has been made during the past year in the development of improved mechanical harvesters of the sled type, according to the Department of Agriculture. The slot feature is used in most of these machines but the cotton is stripped from the plants by revolving snapping rolls, or by lugs attached to endless chains. The snapping rolls are either twisted, perforated, or spiked to provide a rough surface for removing the cotton from the plants. The stripped cotton is either raked or conveyed from beneath the snapping rolls to a box in the rear, provision being made in some cases to screen out some of the dirt and trash. The endless-chain type has no separate conveyors as the stripper fingers convey the cotton to the box.

Mechanical cotton pickers have been developed so that they do satisfactory work. One of the "most promising" examples is said to be of the spindle type, built for both horse and power operation. "These machines do little damage to the cotton plant and are particularly adapted for use where the cotton plant is large or where ripening extends over a considerable period."

While the mechanical harvesting of cotton is not yet beyond the experimental state, it is believed that through the use of machinery a good start has been made toward lessening the cost of gathering cotton.[1]

[1] Descriptions of certain types of machines for cotton harvesting were published in the Review for November, 1927, pp. 31-33.

Displacement of Labor in a Tool-Making Plant

THE elimination of lifting of materials by hand through the installation of material-handling equipment has greatly reduced the number of workers per unit of output in the plant of the Vlchek Tool Co., Cleveland, Ohio, according to a recent article in The Iron Age.[1]

The company manufactures drop-forged hand tools, including hammers; automobile, open-end, and other types of wrenches; chisels; punches; and screw drivers. There is a complete cycle of equipment for handling materials, from the unloading of the stock from cars until the finished tools reach the shipping platform. This equipment consists of gravity-roller and live-roller conveyers, belt conveyers, elevators, elevating buckets, monorails, and cranes. No stock in process is piled up on the floors, the work being kept moving almost continuously from the time it enters the machine shop until it reaches the storage department.

It is reported that in 1918 the company had 16 drop hammers and employed 480 men. By 1927 the number of drop hammers had been increased to 22, and the working force reduced to 280 men. During this period the output increased 30 to 40 per cent. The writer of the article accounts as follows for this increased production:

> The increased production is not attributed entirely to the installation of materials-handling equipment, as various other changes have been made to increase the plant efficiency. Improved materials-handling facilities have created a demand for more rapid production tools in the machining department, and speedier tools have called for the faster moving of material. Consequently the two factors, the use of more rapid machine tools and the better materials-handling facilities, have gone hand in hand.
>
> As work no longer piles up in process, a marked reduction has been made in the time it takes to go through the plant. Formerly in its usual routing it took an open-end wrench from three to four days from the time the blank reached the forging hammers until the finished tool reached the stock room. Now it is stated that that tool, finished, can reach the stock room six hours after forging.

Lowering Costs by Raising Wages

LOWER manufacturing costs as a result of high wage rates has been the experience of a Philadelphia company, according to a paper presented by a representative of the company at a meeting of the Taylor Society.[2] In this connection he made the following statement:

> The wage rates in our factory have more than doubled in the past 15 years, but in spite of this our manufacuring costs are now lower than they were at the beginning of that period. The high wage rates which were thrust upon this country by the war have operated to lower our cost of manufacturing because we have been compelled to employ machinery and power to accomplish tasks formerly done by hand.

[1] The Iron Age, New York, March 29, 1928, pp. 857–862: "More tools made with fewer men," by Fred L. Prentiss.

[2] Bulletin of the Taylor Society, New York, February, 1928: "High wages and prosperity," by Henry H. Williams, The R. T. French Co., Philadelphia.

In discussing the probable results of further increases in wages, he said:

> Some time ago the idea occurred to me, "What would happen if our wage rates should again be doubled?" I have reviewed all the manufacturing operations in our plant and studied carefully all the possibilities for improvement and I am quite certain that after a few years our costs would again be lowered. I see quite clearly the steps which we could take. Compelled by higher wages, appropriations for machinery would be approved which would not now be considered.
>
> Not only would we install more labor-saving machinery, but also we would abolish many wasteful practices which lower wages permit. A number of years ago we booked a great deal of accommodation business. We took orders for particular articles and special sizes which the individual customers desired, and for which there was very little general demand. Because this business involves a very high proportion of hand labor, for it is impossible to do small lots of work on automatic machinery, it has become very unprofitable with rising wage rates, and somehow or other we have managed to get rid of a large portion of it. With wage rates still higher we would manage somehow to abolish what is left of it.

Few people realize, the speaker commented, "how very abundantly machinery and power can produce and can justify high wages." In support of this he called attention to the increased output in the steel industry. "Two men do as much as 14 in the work of charging furnaces; 7 men cast as much pig iron as 60; in open-hearth operation 1 man does the work of 40, and 2 men can unload as much pig iron in a day as formerly 128 men did." The total absence of "what we would call machinery" in countries where wage rates are very low was referred to by the speaker, and he expressed the opinion that the wage level is a very good index of the prosperity of a country. The advantages of high wages to individual industries through increased purchasing power of the workers was stressed.

> If the purchasing power of the workers of this country should increase 25 per cent it would not be difficult to predict what would happen in many industries. The demand for automobiles would undoubtedly increase to an enormous extent. The building of new living quarters for a vast section of our population would be immediately undertaken and the industries affected by such construction would prosper. All sorts of electrical appliances and conveniences would have their sales augmented.

In closing his address the speaker asked that the meeting consider his conclusion "that the prosperity of this country will be hastened and increased more than in any other way by rapid increase of wage rates. where machinery makes this possible."

Production and Per Capita Output in Japanese Coal Mines, 1914 to 1926

THE table given below, on coal production in Japan, 1914 to 1926, has been compiled from the Financial and Economic Annual, published by the Department of Finance of that Empire, for 1925 (pp. 63, 64), 1926 (pp. 71, 72), and 1927 (pp. 71, 72).

The total amount of coal produced was greater in 1925 than in any of the other 12 years listed. It will be noted, however, that for the period covered, 1926 has the highest record for average production per man per day—0.6 ton.

NUMBER OF WORKERS, NUMBER OF DAYS WORKED, TOTAL PRODUCTION AND PRODUCTION PER MAN PER DAY IN JAPANESE COAL MINES, 1914 TO 1926

Year	Number of employees on June 30	Number of days worked	Average number of days per man	Production (tons of 2,000 pounds)	
				Total	Average per man per day
1914	182,637	44,106,992	242	24,574,036	0.56
1915	193,142	42,386,897	219	22,586,950	.53
1916	197,907	47,238,338	239	25,244,412	.53
1917	250,144	57,679,769	231	29,058,193	.50
1918	287,159	69,193,103	241	30,896,835	.45
1919	348,240	83,860,075	241	34,470,126	.41
1920	342,873	81,129,349	237	32,237,187	.40
1921	267,614	63,751,499	238	28,902,986	.45
1922	[1] 249,022	[1] 60,111,505	[2]	30,535,596	[2]
1923	278,771	60,063,425	215	31,910,284	.53
1924	251,069	59,720,700	238	33,191,163	.56
1925	252,898	60,368,322	239	34,677,713	.57
1926	235,044	57,433,472	244	34,641,484	.60

[1] Exclusive figures of the prefecture of Kanagawa.
[2] Not computed, as number of employees was not reported for the entire country.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS

Sanitary Conditions in the Candy Industry

IN THE spring and autumn of 1927 the Consumers' League of New York carried on an investigation of candy making in that city, covering 25 establishments. In addition to the usual methods of interviewing managers and inspecting plants, the investigators entered the plants as workers, presenting themselves in reply to advertisements for help, and not mentioning to employers or fellow workers that they had any motive for their presence beyond the desire for a wage-earning job.

There is no novelty in the picture drawn by the report[1] of the youthfulness of the workers, the low-wage scale, the irregularity of employment, and the speeding up and long hours during the rush period, with corresponding underemployment or none at all, during the slack period. But the facts given as to the cleanliness and sanitary character of the establishments are less familiar, and while some plants are described as practically models of what should be desired along these lines, the description of others makes unpleasant reading for those fond of candy.

The report closes with a suggestion that to improve conditions, both for the maker and consumer of candy, the league might well maintain a white list, placing upon it the names of those firms only which, after complete investigation, are found to pay their employees reasonable wages, to comply with minimum hygienic standards, and to maintain sanitary conditions in their workrooms. The following are proposed as the minimum requirements for inclusion in such a white list:

General

1. Compliance with the provisions of the State labor law in regard to hours of work and overtime.
2. A beginning wage of $14 a week.
3. Provision of seats for all workers in all operations except spread packing. Provision of sufficient seats in spread packing to permit workers to sit at intervals. Permission to use such seats.

Hygienic standards

4. Compliance with the sanitary code requiring a "food-handler's card" or medical examination for all workers on entry.
5. Medical examination of worker through board of health or private or company physican twice a year.

Sanitary standards

6. A clean, well-lighted factory, with clean and sufficient toilets and wash rooms, the latter complying with all provisions of the State labor law and sanitary codes, to be located in convenient proximity to the workroom.
7. Paper or individual towels, soap, and hot water at all times.
8. Enforcement of high standard of personal cleanliness among workers—frequent washing of hands; suppression of finger licking when "sliding cups"; use of aprons over all outer clothing.
9. Maintenance of a temperature of at least 64° F. in all departments.

[1] Consumers' League of New York. Behind the Scenes in Candy Factories. New York, 289 Fourth Avenue, 1928.

Cost of Illiteracy to Industry

A WORKER'S inability to read the English language should be regarded as a continued daily expense to his employer, in the opinion of Winthrop Talbot, a consultant in industrial relations, writing in Manufacturing Industries (New York) for March, 1928. This expense, he states, finds expression often in small but avoidable losses of time, waste of material, spoilage of equipment, misunderstandings, injustice, friction, and, in its larger aspects, in labor disputes and strikes. He points out that industrial disputes are particularly difficult to settle in communities which are largely illiterate.

Illiteracy is also an important consideration in accident prevention. Much of the accident-prevention work consists in the posting of signs and the distribution of bulletins, and these are of little use in connection with employees unable to read English. Many illiterate workers are employed in foundries, steel mills, tanneries, furniture factories, and textile mills, and in the garment trades and numerous other industries. Large manufacturing concerns, it is stated, may have from 10 to 25 per cent of illiterate workers, or those unable to read English. Moreover, the number of such persons in our manufacturing States has been growing steadily. Thus, between 1910 and 1920 the number of illiterates in Connecticut increased from 53,665 to 67,265; in New Jersey from 113,502 to 127,661; and in New York from 406,020 to 425,022. These figures refer to persons 10 years of age and over who could not write, even in their own language; the figures for those who could not read the English language would have been from two to three times as large. Similar conditions are reported to exist in almost all the manufacturing States of the North, and "present almost as much of a 'black belt' of illiteracy in many communities as do the Southern States, with their inherited burden of illiteracy of negroes and native whites."

The author believes that the reduction of unemployment depends in part upon the adoption of measures to overcome illiteracy, and the extension of vocational training, and reeducation for new jobs, to unskilled labor. He refers to the apparent absence of any classes for illiterates, such instruction as is given for adults being adapted to people who at least know how to read in their own language. To find out an employee's ability to read, test cards, which might be used in connection with routine examinations of the eyes, are suggested.

Mobility of Labor in British Cotton Textile Industry

AN ARTICLE on the mobility of labor in the cotton industry in certain areas of Great Britain, published in a recent issue of a British journal,[1] states that there is only a very slight movement of labor from depressed areas to prosperous areas.

The article states that since 1921 production in the cotton industry of Great Britain has never been greater than about 80 per cent of capacity and there has been a great deal of unemployment. It is

[1] The Economic Journal, London, March, 1928, pp. 135–137: "The mobility of labor in the cotton industry," by J. Jewkes and H. Campion.

pointed out that while the loss of earnings would naturally be expected to "compel adaptation on the part of labor to the new situation," yet the number of insured persons in the industry is larger than in 1923, although there was a slight decrease in the number between 1926 and 1927. An investigation made in 1927 of the employment and insurance history of a sample of insured persons [2] showed that between 1920 and 1925 the percentage of outward transfers from the cotton industry was less than in any other industry except the coal industry. The depression in the cotton industry is said to be highly localized, some towns having suffered badly while others have been almost entirely unaffected. A study made to determine whether there had been any movement of labor from the depressed to the prosperous sections of the industry showed that such movement was very slight, and that there was less shifting of woman workers than of men.

There appears to have been no movement of labor between areas in the Lancashire cotton industry which have been comparatively prosperous since 1920 and those which have been constantly depressed. The fine spinning and weaving areas have not, to any appreciable extent, drawn labor from the coarse-spinning towns. Accrington appears to have drawn labor from Blackburn and Burnley, but Blackburn and Burnley, in turn, have taken labor from Accrington. The movement within the industry appears not as a broad movement produced by a common economic stimulus, but as the inexplicable variety of individual action prompted by purely personal factors.

International Management Institute

IN 1920 the International Labor Office was contemplating the establishment of a technical service for the purpose of reconciling the demands of technical progress with consideration for the physical and moral personality of the worker. Subsequent to the depression of 1920, however, conditions were not favorable for an investigation along international lines. The following information on the later development of the scheme is taken from a brief report in the March 5, 1928, issue of Industrial and Labor Information.

In 1926 the governing body of the International Labor Office, on the motion of a representative of the workers' group, gave consideration to the matter of an investigation of "technical improvements in production." Without contemplating a comprehensive research project, the International Labor Conference at its eighth session, on the motion of a representative of the Polish Government, "decided to give special attention to the problem of the scientific organization of labor, the social importance of which was becoming increasingly apparent, and to carry on research in that field."

Meanwhile in the United States, where the initial experiments in new management methods were made, important steps had been taken toward effecting an international exchange of data concerning the problems resulting from such experiments. Instructions had been given Mr. Filene by the XXth Century Fund to look into the possibility of establishing an institute to coordinate the work being accomplished in various countries.

[2] Great Britain. Ministry of Labor. Report on an investigation into the employment and insurance history of a sample of persons insured against unemployment in Great Britain. London, 1927. See brief digest in Labor Review, April, 1927, pp. 45–47.

After protracted negotiations such a proposal was approved by the governing body of the International Labor Office, which approval was soon followed by the foundation on January 31, 1927, at Geneva, of the International Management Institute.

The institute, which is generously subsidized by the XXth Century Fund, was founded in collaboration with the International Labor Office and the International Committee on Scientific Management.

In participating in the foundation of the institute, the work of which it facilitates in various ways, the International Labor Office has not relinquished any of the responsibilities placed on it by Part XIII of the treaty of peace, and retains its competence in any matters connected with international agreements in the form of draft conventions or recommendations relating to the scientific organization of labor.

Mr. Paul Devinat is the director of the institute. Its board of governors includes three members of the governing body of the International Labor Office.

The institute's main purpose is "to compile and distribute information on the subject of scientific management, to carry on research and study in that field, and to facilitate relations between persons and institutions especially interested in the problems of rational organization of production."

The monthly bulletin of the institute has a general section which contains data on national and international movements toward rationalization. A special section of the publication is given over to industrial psychophysiology, industrial technique, and standardization. Bibliographical notes and reports on practical experiments in management technique are also carried in this bulletin.

Adjustment of Claims by Philippine Bureau of Labor, 1922–1926

THE table given below, taken from the annual report of the Governor General of the Philippines for 1926, shows the claims and complaints adjusted by the Philippine Bureau of Labor during the five years 1922 to 1926. These cases involved payment of wages, money advanced by employers to workers, and sometimes the recovery of personal belongings. Through the activities of the bureau in this connection workers are saved considerable expense by not having to employ outside lawyers to take up their grievances.

ADJUSTMENT OF CLAIMS AND COMPLAINTS BY PHILIPPINE BUREAU OF LABOR, 1922 TO 1926

Year	Number of claims and complaints	Number of claimants	Adjustments		Amount collected
			Favorable	Unfavorable	
1922	582	727	312	270	$7,290
1923	769	1,652	379	390	10,686
1924	688	1,155	431	257	15,169
1925	615	1,371	365	250	9,605
1926	766	1,697	447	319	11,788
Total	3,420	6,602	1,934	1,486	54,538

Report of Australian Industrial Mission to the United States

EARLY in 1927 the Australian Government appointed a delegation to visit the United States and to observe and investigate its industrial conditions, in the hope that it might be able to submit, on its return, a "volume of facts and recommendations which will increase the efficiency and promote the development of secondary industries in Australia." The delegation consisted of eight members, representing in equal numbers the employers and employees, with two woman observers and a Government representative. They reached Seattle on March 5, crossed the continent to Boston, visiting large industrial cities on the way, recrossed it, taking in the more southerly cities, and sailed from San Francisco on July 15. The report[1] which they presented after their return consists for the most part merely of statements of what was seen, without recommendations, or discussion of the advantages or disadvantages of any particular feature. Two of the employee representatives, however, and one of the employer representatives were not satisfied with the entirely objective report handed in by the delegation as a whole, so two brief statements are added, presenting some definite conclusions.

The body of the report, which discusses the amount of capital invested, the use of power, research methods, efficiency of management, plant and personnel, apprenticeship, output, standardization, waste, industrial relations, and the like, contains nothing novel or particularly striking. Like other industrial missions, the Australians were impressed by the degree to which mass production has been developed, by the extensive use of power, by the willingness to introduce new methods, even at the cost of scrapping machines with years of effective use still before them, and by the care taken to avoid waste of time and effort. Particularly were they impressed by the effort to save the employee's time.

> A strikingly noticeable feature is that generally every item needed by an operator is within reach, and rarely is it necessary for an employee to leave his position to seek any part wanted to complete his addition or operation to the product.

The addendum signed by the two labor representatives combats vigorously the idea that the greater productivity of American industry is due to the greater skill or effort of the workers, and that American results can be obtained in Australia by such simple methods as introducing the piecework system or dispensing with unions.

> In our opinion the real cause of success in American manufactures is the efficiency of management and supervision, machinery and equipment, up-to-date organization of plant, material, and men, combined with large and cheap supplies of power, and behind these factors stands "scientific research," the whole being based on a market of 118,000,000 people.
>
> Every successful business undertaking in the United States is continuously engaged in research work and experimenting in new processes, new ideas in machinery improvement and equipment, with the object of cheapening the product and generally applying science to industry.
>
> Neither piecework nor any other system of payment of wages or wage incentives play any part in America's successful industrial development. * * *

[1] Australia. Industrial delegation to investigate the method employed in, and the working conditions associated with, the manufacturing industries of the United States. Report. Canberra [1927?].

In our opinion American methods in mass production can not be applied to Australia, nor can its piecework systems be successfully or generally applied until our circumstances, population, and volume of production justify the installation of the superb machinery and equipment, combined with the highly efficient management that America has to-day.

Similarly, mass production, they consider, is not applicable to the small factories of Australia, with their limited home market. Also, the company union, which seems to work in America, would not suit Australian conditions or workers, and any attempt to introduce it would certainly meet with strong opposition. On the other hand, the cooperation between the management and unions, which they found in some large American establishments, would be entirely practicable, and its introduction, they consider, would pave the way to a greater measure of industrial peace. Also, they thoroughly indorse the attention given in the United States to training foremen and executives, who are expected to be "well-trained and sympathetic leaders, not mere driving bosses."

By contrast, the employers' representative who presents an addendum feels that the most striking part of America's industrial relations is the freedom of the employer from restrictions imposed either by an arbitration court, or by trade-union limitations. Unionism, he thinks, has lost its potency in the manufacturing industries, at any rate for the time being. Shop councils and schemes of employee representation he commends, and thinks Australian employers might well introduce them. Division of labor, substituting a group of workers for the all-round craftsman, the use of piecework and bonus systems, and the substitution of voluntary for compulsory arbitration in case of disputes between the management and workers, are all commended as leading to smoother working of the industrial machine and to greater output. American employers give more attention to the efficiency and lay-out of their plant than the Australians do, but the legislative restrictions on industry in Australia may be responsible for this. "Unfortunately employers in Australia have to occupy a considerable portion of their time in arbitration court affairs and in endeavoring to understand industrial tribunals awards, and efficiency in administration in thus impaired." Hours of labor in America are longer than in Australia, although the latter is a debtor country. Finally neither the Government nor the workers in Australia are adopting the wisest course.

From my observations in America, it seems to me that the Australian Government should confine its activities in industry more to assistance in research and the opening up of markets. The American slogan "More business in government and less government in business" could well be adopted with advantage by Australia.

After reviewing all aspects, unionism in Australia must realize that workmen can not expect higher wages and shorter hours unless production is maintained, if not increased, so that industry can be carried on profitably. This is acknowledged in America. Methods of production are changing from year to year, and it is essential that both employers and employees, through their unions, should adapt themselves to the change.

Franco-Belgian Labor Treaty

RATIFICATIONS of the labor treaty between France and Belgium which was adopted at Brussels December 24, 1924, were exchanged between the two countries February 10, 1928.[1]

The treaty, which is similar to the Belgian-Luxemburg treaty of October, 1926,[2] establishes equality of treatment between the nationals of the two countries as regards wages, the application of the labor laws, the acquisition of property, participation in conciliation and arbitration committees, and unemployment benefits.

The treaty became effective upon ratification for the duration of a year and will be tacitly renewable from year to year unless it is denounced by one of the signatories not later than three months before its expiration.

Course of Lectures on Work of New York Department of Labor

A series of lectures on the functions of the New York Department of Labor and their bearing upon the economics of business administration will be given by the State industrial commissioner, James A. Hamilton, and members of the department at the summer sessions of 1928 at the University of Rochester, Syracuse University, the College of the City of New York, New York University, and Columbia University.

Emphasis will be placed upon the fact that the department is not alone intended to serve employees in industry but that it also serves employers and consumers. It is felt that when this fact is adequately realized the people will demand that the department be progressively improved and equipped for their use and that they will then make use of it in their daily life.

The College of the City of New York, and Syracuse University, the Board of Education of the City of New York, and the Board of Regents of the State of New York will grant credits for this course.

The subjects of the lectures are as follows:

The history, organization and function, and aims of the labor department.
Official statistics and their service for business.
Industrial medicine and surgery.
Industrial hygiene—preventive medicine in industry.
How the industrial code is made.
Functions of the industrial board.
The inspection bureau and its meaning to industry.
Workmen's compensation.
The relation of women in industry to the accident ratio.
Fitting the young worker to the job.
Legal aspects of labor problems.
Preventing and settling industrial disputes.
Prevention of industrial accidents.
Clothes and diet a factor in production.

[1] Comité Central Industriel de Belgique. Bulletin, Mar. 28, 1928, pp. 348-351.
[2] See Labor Review, April, 1928, p. 60.

CHILD LABOR

California's Restrictions upon Industrial Employment of Minors

THE Department of Industrial Relations of California, under date of February 8, 1928, issued the following order:

1. The following occupations are sufficiently dangerous to the lives and limbs and injurious to the health and morals of children under 16 years of age to justify their exclusion therefrom:

(*a*) All occupations where such children come in close proximity to moving machinery.

(*b*) All building or construction work of any kind.

(*c*) Delivering goods, merchandise, commodities, papers, or packages from motor vehicles.

2. No child under the age of 16 years of age shall be employed, permitted, or suffered to work in any of the said occupations.

At the public hearings held before this order was issued, a report was presented by the statistician of the department,[1] showing the number of accidents which had been reported as occurring to minors under 16, industrially employed during the year ending June 30, 1927. Only such accidents are reported as cause disability for more than the day on which they occur. Of these there were 402, a number which, there is some reason to believe, understates the truth.

Because many minors claim to be over 16 years of age when applying for work, it is probable that the actual number of minors under 16 years of age who were injured in that year, and whose injuries lasted in excess of one day, was greater than the reported number of 402.

Of these accidents 7 were fatal, 8 caused permanent partial disability, and 387, or 96 per cent, caused temporary disability. Four of the fatal accidents were due to motor vehicles, one to a train, and the causes of two were not specified. The permanent partial disabilities were all caused by power-driven machinery. Of the temporary disabilities, 87, or 22.5 per cent, were caused by motor vehicles; 13.7 per cent by falls of persons; 12.1 per cent by other vehicles; 10.3 per cent by hand tools; and 9.6 per cent by handling objects.

The following table shows the causes of the injuries and, for the sake of comparison, includes the accidents to minors under 18 as well as those to the younger group.

[1] California. Department of Industrial Relations. Division of Labor Statistics and Law Enforcement. Report on industrial accidents to minors under 16 years of age during one year; from July 1, 1926, to June 30, 1927. San Francisco, 1927. 9 pp. (Typewritten.)

INDUSTRIAL ACCIDENTS TO MINORS UNDER 16 YEARS OF AGE AND UNDER 18 YEARS OF AGE IN CALIFORNIA INDUSTRIES DURING THE YEAR ENDING JUNE 30, 1927, BY CAUSE

Cause of accidents	Under 16 years of age		Under 18 years of age	
	Number	Per cent of total	Number	Per cent of total
Explosions, electricity, fire, hot substances	13	3.2	60	3.5
Falling objects	8	2.0	51	3.0
Falls of persons	53	13.2	213	12.4
Handling objects	37	9.2	284	16.6
Hand tools	40	10.0	160	9.3
Power-driven machinery	35	8.7	238	13.9
Other machinery	7	1.7	46	2.7
Poisonous and corrosive substances	7	1.7	47	2.7
Stepping on or striking objects	28	7.0	117	6.8
Motor vehicles	91	22.6	248	14.5
Other vehicles	48	11.9	140	8.2
Not reported	35	8.7	109	6.4
Total	402	100.0	1,713	100.0

It will be noticed that motor vehicles formed the most important single cause of accidents among the children under 16, and that proportionately these were a far more serious danger to the younger than to the older group of workers.

The occupational distribution of the accidents to minors under 16 shows that 53 per cent of the total occurred to those engaged in trade, 22.9 per cent to those in manufacturing and mechanical industries, 11 per cent to those in agriculture, 4.7 per cent in building and construction, 1.2 per cent in public utilities, and 7.2 per cent to those in miscellaneous occupations. Of the 91 accidents caused by motor vehicles, 83 were sustained by minors employed in delivering goods from such vehicles.

Industrial Home Work in Pennsylvania

SINCE 1924 Pennsylvania has been carrying on a campaign against the illegal employment of children in home work. The first step was an investigation made in 1924 by a group of national and State associations (see Labor Review, January, 1927, p. 129), which disclosed numerous and widespread violations of the law. As a result regulations were prepared which, it was believed, would meet the situation, and in June, 1925, these were adopted by the State department of labor and industry. The department's publication, Labor and Industry, gives in its issue for March, 1928, a résumé of the second year's work done by the bureau of women and children in enforcing these regulations. The first year, it is explained, work was directed mainly toward the licensing of home-work employers and toward developing with them methods for maintaining legal standards in the homes where their work is done. During the second year, ending November, 1927, this was continued, but more time was devoted to inspections and educational work.

The emphasis has definitely been shifted from an investigation of the extent of Pennsylvania's home-work problem to an inspection of homes in those localities, and for those industries where the probability of violation of the home-work regulations has been found to be greatest.

On November 1, 1927, the close of the second year's work, 1,161 home licenses were in force, an increase of 251 over the number effective a year earlier. The majority of the employers holding licenses had rather few home workers. Nearly two-fifths (38.5 per cent) employed under 5, 19.4 per cent employed 5 and under 10, and 17.8 per cent employed 10 and under 25. The largest number of home workers was employed upon men's clothing, the next largest on knit goods, and the third on women's and children's clothing.

Of the 1,230 home-working families with children visited for the first time during the year, 308, or 25 per cent, were reported as showing violations of the child labor law. This was a slight increase over the proportion found in 1926, though owing to changing conditions the figures are not strictly comparable. The proportion of homes showing violations of the laws respecting the employment of women was noticeably smaller, only 9 per cent. A total of 2,277 visits was made to the homes, of which 173 were revisits, made necessary because of violations found at the time of the first visit.

Of the 157 cases where revisits were made because of violations of the child labor law, the violation had been corrected in 42 per cent of the cases, in 41 per cent children were still working in violation of the law, and in 17 per cent home work had been discontinued. For the violation of the woman's law the results were a little better. In two-thirds of the homes revisited the violations had been corrected.

Where the law is persistently violated after repeated warnings, a request to the employer to discontinue giving out work has seemed the only effective treatment. Between August 1, 1926, and November 1, 1927, such requests were made of 29 employers in cases of violations involving 133 homes. The discontinuance of work was not necessarily final, though it was often so; but in some instances where an agreement was made that satisfied the employer and the bureau that the law would be complied with in the future, the work was recommenced. In some cases employers withheld work on their own initiative, as a warning that the law must be respected.

In conclusion it is pointed out that the work is still largely educational, and that much remains to be done.

Two years' efforts in the administration of the industrial home-work regulations have not solved the home-work problem. The bureau of women and children is able, however, to define its task as never before. It is now known what industries and occupations, what employers, and what localities have the most acute child-labor problem and what are the more effective methods of preventing violations.

Compensation for Industrial Injuries to Minors in Wisconsin

THE Industrial Commission of Wisconsin devotes the April issue of its publication, Wisconsin Labor Statistics, mainly to a study of the work permits given for minors under 17 during the three years, 1925–1927, but includes also a discussion of the use of increased compensation in cases of industrial accidents to children illegally employed. Under the Wisconsin law no child under 17 years of age may be employed unless the employer first has on file a labor permit authorizing his employment, issued by the commission or by some person designated by it. The State also has a list of employments which, because of their hazardous character, are pro-

hibited to minors of different ages, irrespective of whether or not they have labor permits. If a minor of permit age suffers an industrial injury while employed without a permit, he is entitled to double compensation; if the injury occurs while he is employed in a place for which permits may not be issued, or if, whether or not of permit age, he is injured while employed in a prohibited occupation, he is entitled to treble compensation. The employer must pay the extra compensation, which in special cases may run up to approximately $36,000, and he can not insure against this risk.

The principle of treble liability in prohibited employment cases is that the child shall receive approximately full compensatory indemnity for the loss incurred; such liability results from the individual employer's violation of laws governing the employment of children, and hence it is not an insurable liability to be distributed upon other employers.

Statistics are presented showing that since the beginning of 1923 there have been 324 cases involving increased compensation because of violations of the child labor law. In 265 cases, the minors, being under 17, were employed without a permit first having been secured, and in 59 cases the accident occurred while the minor was engaged in a prohibited occupation; in 20 of these latter cases the ages were 17 and over. In 1927 two-thirds (30) of the cases were of employment without permit, involving double liability, and the remainder (15 cases) were of employment at a prohibited occupation or employment, involving treble liability. The amount of increased compensation paid by employers varied from $10 or less in one case to between $3,000 and $4,000. "The severity of accidents is capricious. One prohibited employment case cost the employer less than $20, another case cost the employer nearly $5,800." The number of cases, with the normal indemnity and the amount of indemnity paid for accidents occurring in illegal employment, for the last five years, are as follows:

INCREASED COMPENSATION INDEMNITY INCURRED BY EMPLOYERS IN CASES INVOLVING VIOLATION OF CHILD LABOR LAWS, 1923 TO 1927

Year	Number of cases	Total amount of normal indemnity	Total indemnity paid
1923	69	$9,782	$29,422
1924	87	15,214	55,819
1925	57	5,806	17,402
1926	66	12,839	35,273
1927	45	11,111	27,223

INDUSTRIAL ACCIDENTS

Accident Hazards and Compensation Rates for Window Cleaners

A POPULAR impression exists that window cleaning is one of the most hazardous occupations, chiefly because of the danger of falling from great heights, but also because there has apparently been little systematic and scientific effort to safeguard workers by the development of efficient belts or by requiring the installation of belt hooks or other devices on newly constructed buildings. Also, it seems to have been assumed by many, including those who formulate the insurance premium rates for this class of workers, that every accident in window washing means a death. Examination shows that the premium rates established range from $2.50 per $100 of pay roll in Washington to $19.88 in Nebraska and a minimum of $305 per man per year in New York. These rates, in cases where available facts justify a conclusion, are higher than those for other occupations or industry groups which have higher accident rates. In this connection, however, it should be emphasized that the insurance rates for window cleaners are undoubtedly affected unfavorably by incomplete pay-roll reports.

A survey just completed by the Bureau of Labor Statistics has brought out the fact that, according to records of 12 States, covering varying periods during the interval from November 1, 1923, to November 12, 1926, only 202 accidents to window cleaners were reported, of which only a relatively small proportion (14 accidents, or 6.9 per cent) resulted in death. On the other hand, of 47 accidents reported in a six-year period, April 23, 1920, to March 25, 1926, to one insurance company which is said to carry the majority of these risks, 23, or 48.9 per cent, resulted in death. The wide difference between these two percentages can be accounted for only by incomplete reporting.

Letters were written to the States and to the Federal Compensation Commission asking for data on the number of fatal and nonfatal accidents occurring to men engaged in window cleaning, particularly in the large cities, and also requesting the premium rates in force and the basis for such rates. The desirability of a classification of the accidents by cause was suggested, at least to such an extent as to disclose whether the accident was due to the breaking of belts, to the nonuse of belts, or to the use of any device the improvement of which would probably have prevented injury, but the information received on this point was not satisfactory.

Replies were received from 33 States [1] and from the Federal Compensation Commission. Only 12 of these replies contained data that could be utilized. Four States [2] and the Federal Government

[1] States from which no reply was received are Alabama, Colorado, Connecticut, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, Nevada, New Jersey, New Mexico, South Carolina, Tennessee, and Texas.

[2] Kansas, Nebraska, Oklahoma, and Pennsylvania.

reported that window cleaners are included in other classifications and therefore could not be separated for statistical purposes. Fifteen States [3] reported definitely that they had had no experience relating to window cleaners, and while in some instances it was believed that accidents to these workers had occurred no record of such was available. The one case in Arkansas, where there is no compensation law, was reported by the superintendent of the United States Employment Service at Little Rock. This was an accident to a negro boy in Little Rock.

Accidents and Accident Rates in Window Cleaning

WHILE data as to fatalities are in no sense complete, a perusal of the tables which follow would seem to indicate that comparatively few window cleaners are killed while at work. As already noted, 12 States report only 14 fatalities in varying periods covering a three-year interval. (Table 1.)

The New York State Industrial Commission reported 16 fatal accidents due to falls from windows during the year ending September 30, 1924. In the year ending June 30, 1926, 7 deaths and 102 nonfatal injuries were reported to the State authorities as occurring to those engaged in "cleaning—vacuum and window," and in the preceding year 3 fatal and 71 nonfatal accidents were reported in the same occupation group. How many of these were injured while washing windows is not stated.

The secretary of the local union of window cleaners in New York City stated on October 6, 1926, that about 50 fatal accidents have occurred to cleaners since the organization of the union in February, 1916. A representative of the employers' association was of the opinion that "there are about 10 fatalities and 15 serious injuries a year in New York City."[4]

The Empire State Mutual Insurance Co., of New York City, is credited by the State insurance fund with writing the majority of risks in this occupation, and its reports may be considered as indicating the extent of accidents to window cleaners. In March, 1926, the company reported to the Bureau of Labor Statistics that during the year 1924 there were 122 claims filed, five (4.1 per cent) of which were fatal cases. For the six-year period, from April 23, 1920, to March 25, 1926, 47 cases were reported by New York City alone, of which 23 were fatal.

The Metropolitan Life Insurance Co., whose industrial policyholders include about 10 per cent of the working males of the population, states that its records covering a seven-year period show an average of three fatal accidents per year to window cleaners. This leads the company to conclude that there are about 30 deaths annually among these workers in the United States. To this number, it is suggested, should be added "a few deaths" among porters, janitors, etc., who clean windows in commercial establishments, and "our experience among such workers would indicate that there are possibly 10 such deaths annually in the United States."

[3] Idaho, Illinois, Iowa, Maine, Missouri, Montana, New Hampshire, North Carolina, North Dakota, Ohio, South Dakota, Utah, Virginia, West Virginia, and Wyoming.
[4] Company of the Amalgamated Window Cleaners' Employers' Protective Association (Inc.).

Table 1 shows the accidents to window cleaners disclosed by the admittedly incomplete reports by 12 States. It should be borne in mind that the numbers given do not represent a three-year period for each State, and a rate or percentage based on the total is accordingly somewhat misleading. The State of Vermont, which is not included in the table, reported definitely that there were no accidents to window cleaners during the two years for which data were requested.

TABLE 1.—ACCIDENTS TO WINDOW CLEANERS IN SPECIFIED PERIODS, 1923 TO 1926, BY STATES

State	Accidents to window cleaners			Period covered
	Fatal	Nonfatal	Total	
Arkansas (Little Rock only)	1	(1)	1	1925.
California	7	(1)	7	1924 and 1925.
Indiana	1	20	21	Do.
Maryland	(1)	22	22	2 years ending Oct. 31, 1925.
Massachusetts	1	34	35	Year ending June 30, 1925.
Michigan	(1)	18	18	Year ending July 1, 1926.
New York	3	55	58	Year ending June 30, 1925.
Oregon (Portland only)	(1)	11	11	1924, 1925, and 1926 (to Nov. 12).
Rhode Island	(1)	6	6	1924 and 1925.
Washington	(1)	[2] 17	[2] 17	Do.
Wisconsin	1	[3] 5	[3] 6	1925.
Total	14	188	202	Nov. 1, 1923, to Nov. 12, 1926.

[1] None reported, but this does not necessarily mean that none occurred.
[2] Includes the washing of buildings also.
[3] Includes the repairing of windows also.

Causes of Accident

THE data here given bear out the general assumption that fatalities in window cleaning are due to falls. Tables 2 and 3, indeed, show that all but one of the fatal accidents recorded were charged to falls. However, nonfatal injuries are caused in a variety of ways, and it is interesting to note that from one-third to two-fifths are due to causes other than falls. Attention is also directed to the relatively large proportion of nonfatal accidents due to falling objects striking workers. Table 2 shows a percentage of 11.8 charged to this general cause.

Table 2, given below, classifies by cause the fatal and nonfatal accidents to window cleaners in nine States, and those reported to the Empire State Mutual Insurance Co. These data are not mutually exclusive, but probably include some overlapping due to the fact that the insurance company's figures include the New York City figures which appear as part of the New York State report in Table 1. The report of this company gave, as the cause of injury, merely "no hook" and "wrong hooks," and in these cases it was assumed that the death or injury resulted from a fall.

TABLE 2.—ACCIDENTS TO WINDOW CLEANERS REPORTED BY 9 STATES [1] AND ONE INSURANCE COMPANY IN VARYING PERIODS ENDING IN THE YEARS 1924, 1925, AND 1926, BY CAUSES

Cause	1924 [2]		1925 [2]		1926 [2]		Total	
	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal
Falls:								
From ladders	1	2	2	29		5	3	36
From windows			7	[3] 20			7	20
From other elevations		1		2		2		5
Through skylights	1		1				2	
Slipping				1		2		3
Noose slipped				2				2
No hooks [4]	3		2	4	3	4	8	8
Wrong hooks [4]	1		1		2		4	
Not otherwise classified				4		3		7
Falling objects		1		12		3		16
Handling objects		5		11		5		21
Glass, tin, etc., cuts, etc				7		1		8
Not otherwise classified		1		6	[5] 1	3	1	10
Total	6	10	13	[5] 98	6	28	25	136

[1] Arkansas (Little Rock only), California, Maryland, Michigan, New York (New York City only), Oregon (Portland only), Rhode Island, Washington, Wisconsin.

[2] Data for the States included are not in all cases for the calendar year and are here classified according to the year in which the period covered ends. In 17 nonfatal cases in Washington, included in the totals for 1924 and 1925, workers employed in washing buildings are included.

[3] Includes 5 cases employed in "cleaning and repairing" reported by Wisconsin. Some of these may not have been window cleaners.

[4] Reported by the Empire State Mutual Insurance Co. for a 3-year period from Feb. 2, 1923, to Mar. 25, 1926.

[5] Includes 28 cases reported for a 2-year period ending in 1925.

Table 3, supplied by the New York State Industrial Commission, includes desirable details as to causes and is given here for the twofold purpose of furnishing a record of the extent of accidents to window cleaners in a city which probably employs more of these workers than any other city in the country, and also as a guide to those States whose records in this respect are inadequate and unsatisfactory from a statistical standpoint. The urgent importance of accident data of sufficient completeness as to be of value in the compilation of statistics to be used in the general promotion of safety and accident prevention can not be overemphasized.

TABLE 3.—ACCIDENTS TO WINDOW CLEANERS IN NEW YORK CITY, COVERING CASES COMPENSATED IN THE YEAR ENDING JUNE 30, 1925, BY CAUSES

Cause	Fatal	Nonfatal	Total
Falls of persons:			
From windows—			
Due to defective safety devices—			
Safety belt breaking	1		1
Belt breaking or slipping from hook	1		1
Iron bar inclosing window breaking	1		1
Other—			
Hand slipping		1	1
Foot slipping		6	6
Screen falling on wrist, breaking hold		1	1
Window frame giving way		1	1
Not stated		3	3
From ladders—			
Due to ladder breaking		1	1
Due to ladder twisting		1	1
Due to ladder slipping		8	8
Not reported		5	5
On stairs, due to slipping		1	1
All other—			
Slipping while on desk		1	1
Catching heel on railing		1	1

TABLE 3.—ACCIDENTS TO WINDOW CLEANERS IN NEW YORK CITY, COVERING CASES COMPENSATED IN THE YEAR ENDING JUNE 30, 1925, BY CAUSES—Con.

Cause	Fatal	Nonfatal	Total
Handling objects:			
Cleaning broken window panes		3	3
Struck by nail in window frame		1	1
Struck by sliver in wooden frame		1	1
Strain in opening stiff window		2	2
Struck by sliver in ladder		1	1
Struck by window brush falling off handle		1	1
Taking sectional ladder apart; struck by upper section		1	1
Falling objects:			
Struck by falling window		4	4
Struck by falling iron rail support		1	1
Striking against object		1	1
Miscellaneous:			
Attacked by strikers		2	2
Door closed on finger		1	1
Total	3	49	52

A recital of the causes of accidents to window washers given by employers and employees alike includes negligence, inefficiency, inattention to ordinary safety requirements, carelessness, and working conditions over which little if any control can be exercised by the men. This last covers such factors as windows so heavy as not readily to be handled by the workers, causing strain or injuries due to dropping the window, or loss of balance and falling. Other kinds of windows regarded as especially dangerous include those only a small section of which opens, requiring the cleaner to step out over the stationary portion and around the open section, thus meeting the danger of being knocked off should the window swing unexpectedly; and those in which the entire sash lifts to a point where it can be swung on a pivot. In the latter case the cleaner may not lift it high enough and, releasing his hold, may be struck by the swinging or falling window.

A Chicago plant, which manufactures window washers' safety devices and employs about 50 cleaners, has expressed the opinion (based on 18 years' experience in the window-cleaning contracting business) that "most accidents are caused from low-grade material and workmanship and faulty installation of safety devices," and that most buildings erected in Chicago more than 10 years ago "are equipped with iron lag screws and screw eyes" the life of which is "about 10 years, which is due to their exposure to the elements which causes them to rust and break off."

In some instances the bolts for the straps are too small and the straps pull off. In other cases the slots in the straps spread and slip off the bolts under strain. Bolts occasionally pull out, especially where embedded in wood. Window ledges which slope and others that are narrow, some only 2 inches wide, cause men to fall. Ledges made of marble, which in winter may become slippery, are particularly hazardous.

The secretary of the New York City window cleaners' local union attributes most of the accidents in this occupation to falls resulting from "inadequate safety provision on buildings," while some are caused by breaking ladders or scaffolds and "some minor ones by broken glass or by nails."

Carelessness of workers is not to be ignored as a very important hazard. One employer estimates that "70 per cent of the accidents are due to negligence of the workers, a fact which the compensation law unfortunately does not recognize." Table 2 shows that not less than 10 per cent are due to nonuse of hooks or to wrong hooks, and it is possible that a number of the other accidents caused by falls may have been due to the absence of safety devices which the workers are supposed to wear. (In some instances, probably, belts were not worn because of absence of provision on the buildings for fastening them, and this can hardly be charged to negligence of workers.) Another practice of some workers is to pass from one window to another on the outside of the building, the safety belt, if any, being of course detached at that time. Other workers fail to hook both ends of their belt straps.

Compensation Insurance Costs and Premium Rates

ALTHOUGH the premium rates applicable to window cleaners in 35 of the 43 compensation States and one other State (Arkansas) are available, the compensation experience from a statistical standpoint, showing the amounts paid for various types of injury or definite data from which an estimate of costs of the hazard may be determined, is very meager and inconclusive. This is due partly to the fact that the occupation is not classified separately because in most States window cleaners are few in number and are therefore included in the building-service group, and partly to the fact that complete reports are not required by State authorities, or are not supplied if requested.

Apparently the most reliable information obtainable is that furnished by the National Council on Compensation Insurance (New York) covering data collected from the member insurance carriers. These data include "a very large proportion of the total business," and cover not only pay rolls upon which premiums were collected but also the losses sustained on these policies during the five policy years, 1918 to 1922. In Table 4, presenting these data, the losses have all been revaluated by the council to make them comparable. That is, the losses of each State have been brought up to the level of benefits of the law of New York State, since the benefit schedules vary materially in the various States. The pay-roll column represents the insured pay roll only, the total probably being considerably greater since many concerns do not insure because of the high premium rate. The serious cases, as given in the table, include death, permanent total disability, and major permanent partial injuries, such as the loss of sight of an eye, or the loss of a hand, foot, arm, or leg; injury involving the impairment to the extent of 50 per cent or more of a hand, foot, arm, or leg; and any other injury compensated on the basis of 25 per cent or more of a permanent total disability. The "all other accidents" columns include additional accidents for which compensation was paid, not including, however, cases involving only medical and surgical costs. The pure "premium" column—i. e., the amount per $100 of pay roll which when applied to the total pay roll produces sufficient premium to meet the incurred losses—has been computed by the Bureau of Labor Statistics. The pure premium rates in Table 4, allowing for the revaluation mentioned, may be

compared with the premiums actually fixed in the various States as shown in Table 5.

TABLE 4.—TOTAL PAY ROLL, NUMBER AND COST OF ACCIDENTS TO WINDOW CLEANERS (CODE NO. 9170), AND PURE PREMIUMS, FOR FIVE-YEAR PERIOD, 1918 TO 1922, BY GEOGRAPHICAL DIVISIONS AND BY STATES

[Data revised to New York level]

State	Pay roll	Death, permanent total and major permanent partial injuries			All other accidents			Medical benefits		Total		
		No.	Cost	Pure premium	No.	Cost	Pure premium	Cost	Pure premium	No.	Cost	Pure premium
East												
Connecticut	$26,700				5	$1,469	$5.50	$744	$2.79	5	$2,213	$8.29
Massachusetts	54,000				8	2,113	3.91	1,006	1.86	8	3,119	5.78
New Jersey	142,200	1	$11,995	$8.44	8	4,161	2.93	3,025	2.13	9	19,181	13.49
New York	1,437,700	31	170,462	11.86	99	35,704	2.48	28,311	1.97	130	234,477	16.31
Total	1,660,600	32	182,457	10.98	120	43,447	2.62	33,086	1.99	152	258,990	15.59
Central												
Illinois	74,000				6	4,265	5.76	822	1.11	6	5,087	6.87
Indiana	11,800							3	.03		3	.03
Kansas	300											
Michigan	11,800				3	620	5.25	20	.17	3	640	5.42
Minnesota	30,500				7	456	1.50	233	.76	7	689	2.26
Wisconsin	18,000				2	56	.31	302	1.68	2	358	1.99
Total	146,400				18	5,397	3.69	1,380	.94	18	6,777	4.63
West												
California	130,700	3	13,473	10.31	14	2,571	1.97	2,987	2.29	17	19,031	14.56
Colorado	29,000				2	374	1.29	104	.36	2	478	1.65
Utah	1,000											
Total	160,700	3	13,473	8.39	16	2,945	1.83	3,091	1.92	19	19,509	12.14
South												
Georgia	6,800				2	137	2.01	238	3.50	2	375	5.51
Louisiana	8,700											
Texas	13,600							7	.05		7	.05
Virginia	500											
Total	29,600				2	137	.46	245	.83	2	382	1.29
Grand total	1,997,300	35	195,930	9.80	156	51,926	2.60	37,802	1.90	191	285,658	14.30
Present national pure premium (New York basis)				6.44			1.96		1.96			10.36

The New York State Insurance Fund reports that it has found it difficult to fix any specified basis upon which to determine rates owing to the problem of securing an employer's full pay roll, and adds that the rate in that State therefore "is based to a great extent on experience plus the difficulties in controlling properly reported pay rolls," and "can not be used as a basis for determining the loss ratio in this industry." [5] The premium rate established by New York State is at present not based on pay roll at all, but is a direct levy of about $1 per man per day, with a minimum of $305 per man per year.

[5] The Empire State Mutual Insurance Co. had, during 1924, earned premiums amounting to $53,346, and incurred losses of $54,639.

Table 5 shows the premium rates per $100 of pay roll in the various States, and the number of occupations or industries in which the premium rates are higher than for window cleaners, disregarding the effect of the minimum rate in each case. This minimum rate in nearly every instance is not fixed definitely, but is placed at $1,000 for cities having 1,000,000 or more people, $500 for cities having from 500,000 to 1,000,000, and $300 for cities having less than 500,000 population. (Exceptions are New York State, Pennsylvania with a minimum of $88, Utah with $128, Texas with $141, New Jersey with $200, and Colorado with $300.) Since very few cities in these States have as many as 500,000 people, the effect is to establish a minimum of $300 for window cleaners in nearly every State, which places them on about the same level as in New York State, and may, where there are large cities, make the rates even higher. These rates were in force in 1927, and except for Ohio, Oregon, and Washington (data for which were furnished by the State) are taken from the manual of compensation and liability insurance issued by the National Council on Compensation Insurance.

TABLE 5.—PREMIUM RATES PER $100 OF PAY ROLL, FOR WINDOW CLEANERS (CODE 9170), AND NUMBER OF OCCUPATIONS OR INDUSTRIES HAVING A HIGHER RATE, BY STATES [1]

State	Premium rate	Number having a higher rate	State	Premium rate	Number having a higher rate
Alabama	$10.09	3	Nebraska	$19.88	1
Arizona	16.89	7	New Hampshire	10.02	3
Arkansas [2]	9.83	(3)	New Jersey	9.90	2
Colorado	10.21	8	New Mexico	6.47	13
Connecticut	15.78	6	New York	[5] 305.00	0
Georgia	13.86	0	Ohio	4.00	(3)
Idaho	12.30	9	Oklahoma	12.07	10
Illinois	13.55	2	Oregon	8.00	(3)
Indiana	14.74	1	Pennsylvania	10.00	7
Iowa	10.73	1	Rhode Island	8.58	9
Kansas	12.20	7	South Dakota	13.42	7
Kentucky	11.53	5	Tennessee	10.16	10
Louisiana	13.97	3	Texas	13.30	7
Maine	15.66	0	Utah	12.00	9
Maryland	11.96	9	Vermont	9.30	1
Massachusetts	14.27	8	Virginia	10.21	3
Michigan	14.84	1	Washington	2.50	(3)
Minnesota	[4] 8.72	31			
Missouri	15.88	8	Average	[6] 11.54	
Montana	8.70	9			

[1] 7 compensation States (California, Delaware, Nevada, North Dakota, West Virginia, Wisconsin, Wyoming) are not included because rates are not available.
[2] Not a compensation State; rate furnished by a casualty company.
[3] Data not available.
[4] Rate is based on experience in painting and decorating outside of buildings.
[5] Minimum rate per man per year.
[6] New York rate not considered in this result.

Now let us approach the matter from another angle, leading to a result necessarily inaccurate in a measure, perhaps, because of lack of sufficient dependable data, but of some significance nevertheless, and attempt a comparison of premium rates based on the hazards encountered in this occupation as measured by accident frequency rates.

First, it should be remembered, in assuming a low fatality incidence, as appears to be indicated by the records at hand, that no available exposure data exist giving total hours worked or even the

number of window cleaners covered, and therefore an accident rate which would give a true picture of the hazard can not be computed. It has been estimated that there are at least 3,000 window washers in New York City. Assuming a working week of 45 hours in 1925 (since these were window washers' hours up to October, 1926, when a reduction to 44 was granted following a strike) and dividing by the man-hours thus derived, the number of accidents, fatal and nonfatal, in New York City, as reported by the State industrial commission and given in Table 3, a fatality frequency rate is obtained of 0.44 per million man-hours' exposure, and a nonfatal accident rate of 7.26, or a total frequency rate of 7.7, for the year ending June 30, 1925. These rates are given merely as an indication and should not be accepted as conclusive, especially in connection with Table 6.

As the result of a strike in October, 1927, the window cleaners in New York City obtained an advance in weekly wages from $43 to $45, with a 44-hour week which was obtained the preceding year. This gives a total of $2,250 per man per year of 2,200 working hours. Using the minimum rate of $305 per man per year, the resulting rate per $100 of pay roll is $13.56, which compares very favorably with rates in other States and with the average rate (see Table 5), but is considerably higher than rates assigned to other occupations or industries of admittedly serious hazards, as brought out in Table 6. Even though the rate is only an approximation, it is based on the experience in the State having the largest exposure, and is therefore believed to be fairly representative and to offer opportunity for comparison with rates in other States.

In Table 6 below, an attempt has been made not only to present a comparison of accident rates and of premium rates in various industries (data for occupations not being available), including window washing, but also to draw attention to the fact that hazards relatively more serious than those of window cleaning, as disclosed by accident frequency rates, carry lower premium rates and lower minimum rates, and also that the ratio of accident rates to premium rates is higher for window cleaners than for most of the other selected groups of occupations represented by industry. It was difficult to secure data to bring out these points because there are few industries for which data are available both as to exposure and consequent frequency rates and as to premium rates. However, the table shows for selected industries the premium rates in force in New York State during 1927 and the accident frequency rates, computed from information on file in this bureau covering the industries in various States in 1925. It may be assumed that the situation disclosed in this table is applicable, subject to local modifications, in all States. It should be emphasized that the accident rates for window cleaners are based upon New York experience only and, while in no sense accurate, are the best that can be obtained and probably will serve a useful purpose in this connection. The premium rate reduced to a pay-roll basis has been used in order to render the data in a measure comparable, and due allowance must be made for this modification.

TABLE 6.—ACCIDENT RATES AND PREMIUM RATES FOR WINDOW CLEANERS IN NEW YORK CITY COMPARED WITH RATES IN SELECTED INDUSTRIES IN 1925

Occupation or industry	Number of accidents		Accident rates			Premium rates		Ratio of fatality rate to—		Ratio of nonfatal rate to—	
	Fatal	Nonfatal	Fatal	Nonfatal	Total	Pure premium	Minimum	Pay-roll premium	Minimum premium	Pure premium	Minimum premium
								1 to—	1 to—	1 to—	1 to—
Window cleaners	3	49	0.44	7.26	7.70	$13.56	$305	$30.82	$693.18	$1.87	$42.1
Blast furnaces	40	1,840	.50	23.8	24.30	8.68	53	17.36	106.00	.36	2.23
Iron and steel erecting	9	191	3.20	68.0	71.20	27.45	147	8.58	45.94	.40	2.16
Foundries	27	7,005	.30	65.6	65.90	4.73	34	15.77	113.33	.07	.52
Machine shops	31	1,788	.30	16.3	16.60	2.93	25	9.77	83.33	.18	1.53
Portland cement	61	2,480	.60	25.46	26.08	5.74	39	9.57	65.00	.23	1.53
Automobile manufacturing	56	4,951	.10	9.04	9.14	1.89	19	18.90	190.00	.21	2.10
Boots and shoes	------	258	------	10.06	10.06	.88	14	------	------	.09	1.39
Agricultural machinery manufacturing	9	1,128	.18	24.91	25.09	3.33	27	18.50	150.00	.13	1.08
Sawmills	11	591	.36	19.27	19.63	12.33	72	34.25	200.00	.64	3.74

It will be observed from this table that window cleaning, with a nonfatal accident frequency rate of 7.26 is given a premium rate of $13.56 (derived in the manner explained on p. 65), while those industries having much greater hazards, as measured by the total frequency rates, are assessed insurance rates which are materially lower, except iron and steel erecting. And this, it must be remembered, is based on an assumed rate of $13.56 per $100 of pay roll, whereas the rate really is $305 per man. In foundries, a most hazardous industry, where the nonfatal accident rate is 804 per cent higher than for window cleaners, the pay-roll premium rate is 65.1 per cent lower and the minimum rate is 88.9 per cent lower; and in blast furnaces, also a hazardous industry, the nonfatal accident rate is 228 per cent higher while the premium rates are, respectively, 36 per cent and 82.6 per cent lower. Even in automobile manufacturing, where the nonfatal accident rate is only 24.5 per cent higher, the premium rates are, respectively, 86.1 per cent and 93.8 per cent lower. Similar comparisons may be drawn as affecting other States by using the premium rates set forth in Table 5.

Setting aside the overbalancing effect of minor accidents of temporary duration, as reflected in the nonfatal accident rates, and considering the fatality rates only, we find that the ratios of these rates to the premiums charged is lower in each of the more hazardous industries as well as four of the less hazardous industries, and higher (ratio to pay-roll premium only) in one (sawmills) of the less hazardous industries.

It is difficult to escape the conclusion that rates have been fixed largely upon a hit-and-miss basis and indeed the statement by the New York State Insurance Fund, as quoted on page 63, would seem to justify this conclusion. The evidence appears to indicate that the rates on a pay-roll basis, while higher than in other industries of greater hazard, may be justified in some cases, but it is believed that the minimum rates, in the face of an apparently low fatality rate, can not be successfully defended. Ohio's experience on this point is illuminating, and possibly suggests a situation that exists in other States. The industrial commission, under date of November

2, 1926, in quoting a rate of $4 per $100 of pay roll, advised this bureau as follows:

We have until the last couple of years had a separate rate for window washing and another rate for contracting janitor service, but we find this to be impractical in that we were not receiving the proper amount of pay roll reported under the window-cleaning classification. A large percentage of the window-cleaning pay roll was being reported under the janitor-service classification which carried a lower rate, as the janitor-service classification carried a rate of 90 cents while the window-cleaning rate was $20. We met this condition by eliminating the two classifications and carrying only one classification for the industry of window cleaning and janitor service, as we found in this State generally that the window cleaners also were engaged in janitor service, and vice versa. The elimination of the two classifications eliminates the possibility of an employer reporting pay roll of a higher hazard under a lower hazard classification.

The rate we had of $20 for window cleaning I think without question was exorbitant, but nevertheless it was the rate developed by the experience as we were able to obtain the same. We know, however, that we were not receiving the full amount of pay roll covered under this classification while we would naturally receive all the losses coming under the same. This unbalanced condition of course resulting in the continual advancement of the compensation rate above the point it should naturally be were we receiving the right amount of pay roll under the classification.

Safety Code Development

NO NATIONAL safety code for window cleaners exists. The National Safety Council is sponsoring an effort in this direction and the American Engineering Standards Committee is lending assistance toward that end. Some progress has been made, and the matter is now in the hands of a representative of the safety council with instructions to draw up a tentative code. Recognizing the necessity for definite provisions for the safety of these workers, several of the States—California in 1917, New York in 1918, and Pennsylvania in 1926—have issued rules and regulations covering the design and use of safety belts and straps to be worn by the men and the types of bolts, hooks, or other devices to be installed on buildings for the attachment of these belt straps. Provision has been made also to govern the movements of men while at work, such as, for example, prohibiting them from passing from window to window on the outside of the building except where a railing is installed. These sets of orders, which in each case have been issued by the industrial board of the State, are very similar, and a copy of the Pennsylvania "Regulations for Window Cleaning" is given below as a guide to other States in issuing similar orders. The Pennsylvania and New York codes carry penalties.

Pennsylvania Regulations for Window Cleaning

Foreword: These regulations shall be understood:

To pertain to window cleaning as hereinafter defined;

To set forth rules to safeguard the lives, limbs, and health of workers who engage in window cleaning;

To place the responsibility of complying with the regulations upon both the employer and employee.

It shall be understood further that the provisions of all other regulations of the department shall apply in all matters not specifically covered by these regulations which involve the lives, limbs, and health of workers.

Penalty: Every person or persons who violate any of the provisions of these regulations of the department or who interfere with the secretary of labor and industry or his duly authorized representative in the enforcement of these regula-

tions shall be deemed guilty of a misdemeanor and may, upon conviction thereof, be punished by fine or imprisonment, or both.

Petition: For the modification of any of these rules the following shall be the method of procedure:

Any employer or employee, or other person interested or affected by such rules may petition for a hearing on the reasonableness of such rules by filing a petition with the secretary of the industrial board at Harrisburg, Pa., setting forth the rule or rules upon which a change is desired and the reasons for said change.

Upon receipt of a petition the industrial board will determine its merits and if a hearing is necessary, notice of time and place will be given to the petitioner and to such other persons as the industrial board may find directly interested.

SECTION 1.—*Administration*

The rules set forth in these regulations shall apply to every establishment within this Commonwealth.

Removal and replacement of guards.

(a) No person or persons shall remove or make ineffective any safeguard, safety appliance, or device attached to machinery except for the purpose of immediately making repairs or adjustments; and any person or persons who remove or make ineffective any such safeguard, safety appliance or device, for repairs or adjustments, shall replace the same immediately upon the completion of such repairs or adjustments.

Employers' responsibility.

(b) Every employer or person exercising direction or control over any person or persons who remove such safeguard, safety appliance or device, or over any person or persons for whose protection it is designed, shall have the safeguard, safety appliance or device so removed, promptly and properly replaced.

Employees' responsibility.

(c) Every employee shall use all safeguards, safety appliances or devices furnished for his protection and shall carry out all regulations which may concern or affect his conduct.

SECTION 2.—*Definitions*

For the application of these requirements:

Establishment.

(a) The term "establishment" shall mean any place within this Commonwealth where work is done for compensation, to whomever payable, supervision over which has been given by statute to the department of labor and industry.

Approved.

(b) The term "approved" shall mean approved by the industrial board.

Window cleaning.

(c) The term "window cleaning" shall mean the operation of cleaning windows from the outside of any building included under the definition of establishment.

SECTION 3.—*Specifications*

When approved safety devices may be used.

RULE 286. *Requirements governing window cleaning.*—(a) (AI) In every building hereafter erected having windows with sills twelve (12) feet or more above the grade and so constructed that it is practicable for a person to stand on the outside sill or ledge in order to clean the windows, approved safety devices for the protection of the workmen shall be provided. In no case shall such practices be followed where the width of sill is less than nine (9) inches.

(EI) Where windows are so constructed and it is usual or practicable to clean same from the inside, alterations, changes or obstructions which will make it necessary to clean said windows from the outside shall not be made unless permission is obtained from the secretary of labor and industry.

Design of safety devices.

(b) (NI) Where safety belts are used, they shall be made of heavy leather, canvas, rope, or other equally strong material. Bolts, rings, or other fittings for holding the belt shall be at least four in number for each window (two on each side of the window) and shall be of bronze, brass, or other approved durable metal. They shall be securely fastened to the side frames of the window or to the building at a point approximately even with the bottom

of the upper sash. The ends of the belt shall be fitted with heavy metal safety terminals and the fittings for holding the belt shall be fastened to the building as follows: Methods of fastening bolts to building.

(1) In masonry and concrete construction, bolts shall be not less than five (5) inches in length and shall be embedded at least four (4) inches. They shall be not less than three-eighths (3/8) inch in thickness if round and, if rectangular, not less than one-quarter (1/4) inch in thickness, and having a minimum sectional area of at least as great as a three-eighth (3/8) inch round. These bolts shall have either a right-angle bend of at least two (2) inches, or a metal washer riveted, or otherwise securely fastened, to the end of the bolt. The washer shall be at least four (4) square inches in area and shall be embedded in the masonry.

(2) In wood construction, bolts shall be the same size as for masonry and concrete construction and shall pass through the entire wall or studding, except where intermediate mullions are used. Where intermediate mullions are used, bolts shall pass at least three-fourths (3/4) the distance through the solid mullion. All bolts in wood construction shall be securely fastened by a nut and washer and ends of bolts shall be chipped to prevent turning or removal of the nuts.

(3) In hollow frame construction, fittings for attachments of safety belts shall be screwed at least one-half (1/2) inch into a wrought iron or steel plate not less than one-half inch by one and one-half inches by eight inches (1/2" x 1 1/2" x 8"). Such plate shall be riveted or bolted to the metal frames and tapped to receive said fittings.

(4) Solid metal frame fittings shall be screwed into the metal frame and a reinforcing plate at least one-half (1/2) inch, or screwed through the metal frame into a nut at least one-half (1/2) inch thick. In the latter case the ends of the fittings shall be riveted over the nut.

(5) Any other method of attaching bolts shall be approved by the secretary of labor and industry.

(c) (AI) When windows are cleaned from a scaffold, the scaffold shall be built in accordance with the requirements of rule 164 of the regulations of the department of labor and industry pertaining to scaffolds and with the special requirements for any of the following types of scaffolds that the employer may desire to use: Pole scaffolds, swinging scaffolds, painters' scaffolds, or carpenters' bracket scaffolds. Scaffolds.

(d) (AI) When portable ladders are used they shall be fitted with safety feet or other suitable means to prevent slipping, and shall comply in all respects with the regulations of the department of labor and industry pertaining to ladders. Ladders.

(e) (AI) Window cleaners shall use safety devices provided for their protection. Window cleaners to use devices.

(f) (AI) Window cleaners shall not pass from window to window on the outside except where a supported railing is installed. Passing from window to window.

(g) (AI) Existing safety devices and methods of window cleaning other than those specified above shall be approved by the secretary of labor and industry. Safety devices other than those mentioned herein.

It has been estimated that 80 per cent of the buildings in New York City are not equipped with bolts for the attachment of safety belts, probably due largely to the fact that the industrial code covers only factories and mercantile establishments. Architects in designing buildings apparently do not consider the safety of window cleaners, neither in type of window nor in width of the ledges specified. Much could be done along these lines in rendering the occupation less hazardous.

Various types of belts are worn, usually, however, of leather with leather or rope straps to be hooked or fastened in some approved manner to bolts or hooks or other suitable projection from the

building on each side of the windows. The metal portions of the safety belts are usually of bronze, or brass, since these metals are not subject to the corroding tendency of iron or steel.

Many of the workers object to the belts, claiming that they are inconvenient and may really be dangerous because they may lead to carelessness on the part of the worker. This objection, however, might be offered as to any safety device and can not logically be considered valid. One worker stated, when questioned as to the use of his belt, that he did not place dependence so much upon the belt as upon the way he handled himself. All window cleaners are not careful. Another objection raised is that the wood in which the hooks in the building are embedded often becomes decayed, which fact is revealed all too late when the hook pulls out under strain; or the hook may be imperfect or the straps weak. Where windows vary in size and men vary in height, it is often found that the position of the hooks renders the belts practically useless. Thus a tall man working at a small window is handicapped as seriously as a short man working at a large window. In both cases the position of the hooks so disturbs the position of the belt as to cause it to be abandoned from choice if not from necessity. In some cases the windows are too wide for the length of the strap, which often leads the worker to hook only one end of the strap. If the cleaner then slips, the strain is frequently too much for the single hook and a fall results. Two suggestions that might well be adopted by the men in the interest of personal safety are: (1) Hook the belt at one side, at least, before climbing out upon the ledge, and (2) use the free hand to steady the body in its movements, even though a belt is worn.

American Engineering Council's Report on Safety and Production

WHEN, some 16 years ago, American industry began to realize the serious nature of the problem of personal injury there was a very prompt reaction in the direction of the passage of compensation laws and the development of safety programs.

The accident mortality rates took a downward trend which they maintained until recently. Two years ago, however, the National Bureau of Casualty and Surety Underwriters observed a serious increase in the cost of accidents; for example, during the years 1923 to 1926 the premiums received by companies reporting to the State of New York were less than the losses incurred in their compensation business by the sum of $44,000,000.

The bureau accordingly approached the American Engineering Council with a proposition to undertake a survey of the situation. The council accepted the proposition and organized a committee to have general charge. A corps of field engineers were secured who by personal inquiry obtained a large volume of data on the various phases of the subject. The final report of the investigation, which was under the direction of J. E. Hannum, has just been published.[1]

Three things became evident almost immediately: (1) In the larger and more thoroughly organized industries accident rates have been

[1] American Engineering Council. Safety and production. New York, 1928.

consistently and even spectacularly declining; (2) the cost of accidents has seriously increased; (3) the product of industry has remarkably increased. On the third point a few illustrations are pertinent. The following figures are from the United States Bureau of the Census:

	1919	1923
Pig iron—Tons per $100 of wages	41. 40	68. 15
Cement—Barrels per $1 of wages	2. 45	2. 79
Fertilizer—Tons per $100 of wages	32. 48	46. 12

This list can be almost indefinitely extended.

Apparently the increased seriousness of accidents during the last few years has been the direct result of the increased intensity of industrial activity during that period. Increased activity requires the employment of new, inexperienced men and the shifting of old men to new jobs. Periods of rising accident rates have, in general, corresponded to periods of heightened industrial activity. * * *

This, then, is the modern problem, the problem which definitely underlies this present study: How can accidents be controlled under modern conditions, conditions which are becoming continuously more difficult? * * * Can they be controlled?

The answer is direct and emphatic. What has been done in extra-hazardous industry can be done in any industry. Control has been established in railway operation and in the iron and steel industry.

It should be pointed out that the connection between safety and efficiency * * * goes very deep. There is undoubtedly a direct relationship between safety and production which is of considerable importance. The disturbing effect of an accident upon business is now known to be much greater than has been generally supposed. In fact, the effects of an accident that are commonly insured against probably constitute not more than a fourth or fifth of the entire economic loss. Important as this may be, however, this is not the relationship that is being primarily studied; * * *. The really significant relationship between safety and efficiency is not a direct relationship at all, but arises out of the fact that both are the results of a third factor, namely, a purposeful, powerful, dynamic, executive organization of the industry. An industry that is rightly conceived and organized will function properly, not in one respect but in all respects. It will be efficient not through any special quality, but because it is functioning as it was meant to function; it will be safe not primarily because of special precautions, but because safety is a characteristic of an industry which is functioning properly. The relationship between safety and efficiency of production * * * is therefore one that exists because they both spring from a common source.

Findings of the Committee

FOR the purposes of this study the committee sought information from a list of industrial concerns on the following points: (1) Average number of employees per year; (2) man-hours worked per year; (3) annual production; (4) lost-time accidents per year; (5) days lost due to lost-time accidents per year. From this data accident rates, both frequency and severity, and production rates were computed.

The extent of usable information obtained is shown by the following figures: Companies, 13,898; employees, 2,464,413; man-hours, 54,430,707,000.

A comparison of the 1925 experience with that of 1922 gave the following results: Productivity increased, 14.4 per cent; accident frequency decreased, 10.4 per cent; accident severity increased, 2.5 per cent.

The detail findings of the committee were as follows:

1. Industrial accidents can be controlled under modern conditions of highly efficient productivity.

2. The experience of a large group of companies shows that material reductions in accident rates can be obtained together with an increasing production rate.

3. Major industrial executives have as much responsibility to initiate accident prevention as to initiate improvements in productivity.

4. Efforts to improve safety performance do not interfere with production.

5. Maximum productivity is ordinarily secured only when accident occurence is tending downward.

6. The production and the accident performance of the best plants in each industry clearly show that the majority of plants can achieve notable further improvement.

7. The incidental cost of industrial accidents is an economic loss which should not be neglected.

8. Organized safety work is being carried on in a relatively small percentage of industrial plants.

9. A large number of industrial establishments keep no accident records and make no attempt to analyze their experience as a first step in decreasing accidents.

Recommendations of the Committee

THE committee made the following recommendations:

1. That the same executive direction and control be given to decreasing industrial accidents as is given to increasing productivity.

2. That those agencies which collect and disseminate accident statistics adopt uniform terminology and standardized records so that all data will be compiled on a nationally comparable basis.

3. That the executives of those plants having high accident frequency and accident severity rates initiate, direct, and control ways and means of lowering such rates. * * *

4. That industrial trade associations, engineering societies, and other agencies concerned with the improvement of industrial operation bring to the attention of their members the necessity of improvement in safety performance as a vital step in the strengthening of their industrial position.

5. That industrial trade associations secure, compile, and analyze accident statistics for the purpose of determining the lowest accident rate possible of attainment for their respective industries.

6. That industrial trade associations endeavor to secure such action on the part of executives of their industries as will result in each plant having the lowest accident rates obtainable.

Digest of the Report

A SECTION of the report is devoted to the presentation of the experiences of particular industries. This experience may be summarized in the statement that 80 per cent of the industrial groups showed an increasing production rate, 52 per cent had a declining frequency rate, and 68 per cent had a declining severity rate.

Levels of Performance

TO determine the level of performance of the plants, grouped according to experience, a classification of the changes in accident and production rates from year to year was made, and designated as

follows: A, Increase in production rate and decrease in accident-frequency rate; B, increase in production rate and increase in accident-frequency rate; C, decrease in production rate and decrease in accident-frequency rate; D, decrease in production rate and increase in accident-frequency rate.

There were 330 plants which gave an experience record of four years or more, and for this group the percentage of the total changes in accident and production rates during this experience which fell in the different classes were as follows: Class A, 30.6; class B, 30.3; class C, 22.4; class D, 16.7. Of these 330 plants, 81, whose record showed that 60 per cent or more of the production-rate changes were increases and 60 per cent or more of the accident-frequency rate changes were decreases, constituted the high level of performance group. For this group the percentage was as follows: Class A, 54.6; class B, 21. 5; class C, 17.5; class D. 6.3.

Increased Productivity and Reduction of Accidents

COMPARING the showing of the industries in the matter of changes in production and accident rates in 1925 with that of 1922, 26 industries show increasing production and 10 industries decreased production; accident-frequency rates decreased in 23 industries and increased in 16, and accident-severity rates decreased in 22 industries and increased in 15.

Accidents in Terms of Production

DETERMINING accident occurrence in terms of production, it was found that in relation to production 19 industries had an average annual declining accident frequency and 3 had increasing accident frequency, while there was decreasing accident severity in 17 industries and increasing accident severity in 5 industries.

The report also presents the showing of the individual industries as to the relation of frequency and severity to production, and devotes a section to illustrative special cases. The detailed material utilized in the preparation of the report is also given.

Industrial Accidents in the Philippines, 1922 to 1926

THE following table on industrial accidents in the Philippines, 1922 to 1926, is reproduced from the annual report of the Governor General of the islands for 1926 (p. 262):

INDUSTRIAL ACCIDENTS IN THE PHILIPPINES, 1922 TO 1926

Year	Number of accidents	Number of injuries				Adjustments		
		Temporary	Permanent	Fatal	Total	Indemnified	Unindemnified	Amount collected
1922	417	385	17	69	469	149	320	$4,518
1923	343	298	5	86	389	196	193	6,236
1924	500	437	31	61	529	214	315	5,702
1925	430	390	15	48	453	247	206	10,853
1926	447	390	19	104	513	202	118	5,630
Total	2,137	1,900	87	368	2,353	1,008	1,152	32,939

Fatal Industrial Accidents in Canada, 1927

THE statement below shows the fatal industrial accidents in Canada for the calendar year 1927 as compared with the preceding year, the figures being taken from the Canadian Labor Gazette for March, 1928:

Industry:	1926	1927
Agriculture	152	162
Logging	129	155
Fishing and trapping	71	125
Mining, nonferrous smelting, and quarrying	162	165
Manufacturing	187	151
Construction	166	183
Transportation and public utilities	354	314
Trade	27	26
Finance	2	1
Service	72	96
Unclassified	11	----
Total	1,333	1,378

HEALTH AND INDUSTRIAL HYGIENE

Occupational Fertility and Infant Mortality in England and Wales

AS PART of the English census studies the Registrar General publishes a decennial report dealing with occupational mortality, fertility, and infant mortality in England and Wales. The latest of these reports, which has recently been issued, shows some striking differences between 1911 and 1921 in the matters of fertility and infant mortality. The comparative figures are given as follows:

COMPARISON OF LEGITIMATE FERTILITY AND INFANT MORTALITY, BY SOCIAL CLASSES, 1911 AND 1921

Social class	Legitimate births per 1,000 married males under 55 years of age			Infant mortality per 1,000 births		
	Rate in 1911	Rate in 1921	Per cent 1921 rate forms of 1911 rate	Rate in 1911	Rate in 1921	Per cent 1921 rate forms of 1911 rate
Upper and middle	119	98	82	76	38	50
Intermediate	132	104	79	106	55	52
Skilled workers	153	141	92	113	77	68
Intermediate	158	162	103	122	89	73
Unskilled workers	213	178	84	153	97	63
All classes	162	141	89	125	79	63

It is apparent that the fertility in both periods increased progressively as the social status declined and that for the population as a whole and, with one exception, for each of the five classes, fertility was less in 1921 than in 1911, "notwithstanding the fact that the postwar wave of fertility, which reached its highest point in 1920, had not spent itself in 1921." For the one exception to the general decrease in 1921, an explanation is probably found in the fact that in 1921 two large groups of workers (coal miners and agricultural laborers) were included in this class, while in 1911 they and also textile workers were left out altogether. Coal miners and agricultural laborers are both known to be above the average in fertility, so that their inclusion may account for the whole difference. It will be noticed that the second group shows the most marked decline, and that unskilled workers have shown a decrease almost equal to that of the upper and middle classes.

The infant mortality rate shows the same progressive increase from the highest to the lowest of the social classes, and also a marked decrease in the second period. The rate of decrease is greatest in the upper classes, but is marked throughout.

Owing, however, to the changes in the scheme of social grading, as well as in the occupational tabulation on which it is based, only the major features of the table can be relied upon. It is inserted only with a view to showing the broad tendency of the rapid changes in progress.

OLD-AGE PENSIONS AND CARE OF AGED

Extent of Old-Age Dependency

THE industrial welfare department of the National Civic Federation has recently issued a study, under the above title, of the economic and physical condition of persons aged 65 and over, based on an investigation covering 11 cities and 2 country towns in New York, New Jersey, Pennsylvania, and Connecticut. Pains were taken to secure as representative a cross section of the population in this age group as possible. Registration lists of voters and census lists were used, and where these were not obtainable, house-to-house canvasses of the selected districts were made, and every person in the specified age group was interviewed. In some of the smaller cities everyone aged 65 or over was visited, and where this was not practicable, representative sections were chosen for visit. Persons in public or private institutions were omitted, but with that exception the studies were inclusive of every class of aged person.

From the persons thus scheduled, recipients of military pensions and widows drawing such pensions in respect of their husbands were eliminated, leaving a group of 13,785, who, classified according to their property, showed the following grouping:

Property owned:	Number of persons [1]	Percentage distribution
$10,000 or over	3,546	25.8
$7,500 to $9,999	844	6.1
$5,000 to $7,499	1,475	10.7
$4,000 to $4,999	617	4.5
$3,000 to $3,999	648	4.7
$2,000 to $2,999	708	5.2
$1,000 to $1,999	701	5.1
$100 to $999	1,024	7.4
Under $100	129	.9
None	4,068	29.5
Not stated	25	-----
Total	13,785	100.0

These figures, it is pointed out, show that the majority of the population have been able to make some provision for old age. One-fourth (25.8 per cent) owned property, either in their own right or in that of a spouse, amounting to $10,000 or more, and 42 per cent had property to the value of $5,000 and upward. If the grouping is made by income, instead of by property owned, the showing is still more favorable, only 19.1 per cent being without any income as against 29.6 per cent who had no property. The proportion having annual incomes of $1,500 or over, 24.1 per cent, is almost the same as of those having property worth $10,000, and many in the two groups

[1] In this study husbands and wives are counted separately, but any property owned by one spouse is included in reckoning the other's resources. Where, as in some of the tabulations, two tables giving property by sex have been combined, this may lead to a slightly too favorable statement of the situation.

are identical, but a number of those with little or no property are in receipt of fairly good incomes from their own work or business. Just what amount of property may be looked upon as providing an independent income is a question, but the fact is stressed that 57 per cent, or well over half, of the whole group owned property worth $2,000 and upward, while 40 per cent, either singly or with their spouses, had annual incomes of at least $1,000.

Nevertheless, the situation revealed by this investigation is far from satisfactory. Over one-fourth of the group, 4,068 or 29.5 per cent, had no property whatever, and 2,316, or 16.8 per cent, had neither property nor income, however small. In other words, one in every six of the population aged 65 or over had no means of support of any kind. In five of the six States which have adopted public pensions as a means of relieving the aged, 70 is set as the age at which pensions may be paid. Of those covered by this study who were aged 70 and over, less than half—3,390, or 47.8 per cent—owned property to the value of $3,000 and over, and of those aged 75 and upward the proportion was 44 per cent. Unfortunately, the incomes are not given by age groups, so it is not possible to say how many of those in the higher age levels are found in the "no income, no property" group.

Of the entire group of 13,785 studied two-fifths were dependent, in whole or in part, upon aid from others. By far the larger proportion of these were aided by their children, the rest relying upon other relatives, friends, and public and private charity. (Those who had been forced to seek aid in institutions, it must be remembered, were excluded from consideration.) The amount of aid given varied, ranging from trivial amounts to complete support, but the number receiving substantial help seems to have been large. "The number who were entirely dependent, or practically so, on children, relatives, friends, and charity was between 20 per cent and 25 per cent of the total number interviewed."

A situation in which from one-fifth to one-fourth of the total population aged 65 and over, including the business and professional as well as the working classes, are obliged to depend upon others for support is, to put it mildly, open to improvement. The study does not attempt to solve the problem, but it does indicate the lines along which those presenting it feel that efforts at betterment may be made most hopefully. Special provision, of course, must be made for those who break down early or are in need of institutional care, or who otherwise must be considered apart from the normal population. Of the others, a large proportion are already providing for themselves, and for the remainder various devices are suggested. Inculcation of the value of thrift and means for making its practice easy are recommended. Vocational rehabilitation for those injured through accident or disease will take some out of the class needing help. But most helpful of all, it is suggested, would be such a system of industrial pensions as the federation has urged upon employers, together with such adaptation of occupation to the failing strength of an older employee as a considerate employer might easily devise.

Table No. 19 permits the inference that labor is not so mobile but that a general adoption of a service-pension system in industry and commerce would yield substantial benefits to a high percentage of employees; nearly 40 per cent stated that they had been with the same employer 25 years or more. Several tables

in which ability of the aged to do light work is mentioned have a bearing on the minimum of proposed scales of pensions; a man with some accumulated capital and having light work to occupy him of course could maintain himself on a smaller pension than if he should have neither. At various points in the tables one may read between the figures the desirability of suitable employment for the aged. There is hardly a table that does not contribute some point in the argument that a large proportion of those workers who are in danger of becoming dependent could be cared for in the future if industry generally should adopt a definite policy for retirement annuities and for providing light employment for the workers of failing strength.

Local Attitude Toward Old-Age Pensions in Wisconsin

ACCORDING to the American Labor Legislation Review (March 1928, p. 104), one county of Wisconsin, having experimented in the care of its aged both with and without the pension system, has definitely decided that the pension plan is the better. Under the Wisconsin act, each county has the right to determine for itself whether or not it will adopt the old-age pension system.

Wood County accepted the act and operated under it for a year and a half, but early in 1927 the board of supervisors abandoned the plan on the ground that difficulties had been encountered in enforcing the law. In readopting the old-age pension system, with but one dissenting vote among the 45 members of the board, the county now calls upon the governing bodies of the towns, cities, and villages to assist in determining the merits of applications for pensions. The American Association for Labor Legislation is officially informed, in reply to an inquiry, that the readoption of the old-age pension plan appears to have been a recognition that "there was considerable feeling in the county that this plan of relief is meritorious."

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

French Social Insurance Law

ONE OF the most comprehensive social insurance laws of any country has been enacted by the French Parliament. The social insurance bill [1] was introduced by the Government in March, 1921, and has been before Parliament since that time. The bill, after having been passed by the Chamber of Deputies in 1924, was amended and passed by the Senate July 7, 1927, and returned to the Chamber of Deputies, where the amendments were accepted and it was enacted into law March 14, 1928, by a vote of 477 to 2, with 50 abstentions. The law does not apply to Algeria and the colonies nor, as yet, to the Departments of the Upper and the Lower Rhine and Moselle. A special law to be passed later will fix the date of application of the insurance to those three Departments.

The law covers most of the major risks to which the individual is exposed, providing compulsory insurance for sickness, invalidity, old age, and death as well as for family expenses of incapacitated wage earners, and for maternity care. The law also guarantees the maintenance of insurance against the various risks in the event of unemployment. Compensation for industrial accidents is not included, but is provided for by the law of April 9, 1898. The original compensation law related to workers in industrial establishments only, but it has been amended at different times to include workers in commercial enterprises, forestry workers, agricultural workers, and employees in domestic service, so that the coverage in case of industrial accident is now practically complete.

The present law provides the different forms of insurance for wage earners whose total annual earnings, exclusive of family allowances, do not exceed 18,000 francs (with the exception of civil servants, miners, railway workers, and others who are already protected by special legislation) and is maintained by State contributions and by contributions of 10 per cent of the wages of those insured, divided equally between employers and employees.

Medical care of all kinds, medicines and appliances, hospital and sanatorium treatment, and operations are provided under the scheme of sickness insurance, and these benefits are extended not only to the insured person but to the husband or wife and unemployed children under the age of 16. In addition the insured person, if unable to work, receives a daily cash benefit of half his average daily wages.

Maternity benefits are paid for a period of six weeks before and six weeks after confinement; medical care and medicines are also provided, and a monthly nursing bonus or a milk allowance is allowed.

[1] France. Chambre des Députés. Session de 1928. Rapport sur les assurances sociales. Tome II. Paris, 1928, pp. 147-196 (Doc. No. 5496); La Journée Industrielle, Paris, Mar. 15, 1928; and Ministère du Travail et de l'Hygiène, Bulletin. July-Aug.-Sept., 1927, pp. 343-349.

An invalidity pension is paid to persons disabled as a result of sickness or accident if the degree of incapacity amounts to at least two-thirds. The disability benefit varies according to the length of service of the disabled person, but for persons insured before the age of 30 it amounts to at least 40 per cent of the average annual wages.

Old-age retirement takes place at the age of 60, with the option of continuing work until the age of 65. The retirement pensions amount to 40 per cent of average annual wages for persons who have contributed to the scheme for at least 30 years.

Death benefits are fixed at 20 per cent of the average annual wages, but may not be less than 1,000 francs, except when the annual wages are less than that amount in which case the pension is two-thirds of the annual wages.

In case of the sickness, invalidity, or death of an insured person an allowance of 0.50 franc per day is paid for each child between the ages of 6 weeks and 16 years. The parents are also entitled, in the case of each child, to a sick benefit of 100 francs a year and a death benefit of 100 francs.

Insured persons, involuntarily unemployed, are secured in their rights to the various forms of insurance during a maximum period of 6 months in any 12 months if they have been affiliated to the insurance system for an entire year before the period of unemployment.

The insurance law will be put into effect gradually and will operate fully when the reserve reaches 10,000,000,000 francs.[2] It is generally agreed, however, that the law will require revision [3] to meet the objections advanced by the different interests, such as those of the Socialists, who believe the contribution of the State is not large enough, and those of the farmers and other economic groups.

The principal provisions of the law are as follows:

Scope and General Regulations of the Law

ENROLLMENT in the social insurance scheme is compulsory for all wage earners of both sexes whose total annual remuneration of whatever nature, with the exception of family allowances, does not exceed 18,000 francs. This limit is increased by 2,000 francs for each child after the second who is in the care of the insured and is diminished by 3,000 francs for wage earners without children. Small tenant farmers (*métayers*) ordinarily working alone or with members of their families and not owning any part of the livestock are considered as wage earners, while the owners of the property thus rented are considered employers. Foreign wage earners permanently residing in France are subject to the compulsory insurance except that they do not benefit by certain allowances for sickness and old age.

Employers are required to notify the social insurance office within eight days after hiring a worker and the worker is then enrolled by the insurance office and is given an individual insurance card.

The insurance funds are maintained by contributions from the State and by contributions of 10 per cent of the total amount of wages up to a maximum of 15,000 francs, 5 per cent to be deducted from

[2] New York Times, Apr. 1, 1928, sec. 10, p. 4. [3] La Journée Industrielle, Paris, Mar. 9, 1928.

the employee's pay at least once a month and 5 per cent to be paid by the employer. These deductions must be made by the employer whatever the duration of employment. The payment may be made by means of stamps, postal checks, or any other method of payment decided upon by the insurance authorities. The double contribution must be paid during the first 10 days of each month, covering the wages paid in the preceding month. Farmers affiliated with a mutual or an authorized agricultural organization may pay the contribution quarterly either directly or through one of these organizations, the contribution being due during the first 15 days of each quarter for the preceding quarter. The contributions will stop, according to the case, either at the end of the month or of the quarter preceding the sickness or accident.

A general administrative regulation will determine the method of estimating the wages and also the method of collecting the contributions on these wages.

Where agricultural wages are not paid regularly or are paid only in kind, an average wage rate for such work will be fixed according to the average annual wage or the average value of the payment in kind in the agricultural region in question. The contributions of tenant farmers and of farm proprietors will be calculated on the same basis.

A home worker, compulsorily insured, who is paid by the job or piece by a manufacturer, is not responsible, as employer, for the contributions for other workers who work with him for the same manufacturer, but such contributions are paid by the manufacturer, who is liable therefor notwithstanding any agreement to the contrary.

Wage earners or their employers may voluntarily add to their compulsory payments, without any limitation as to amount, for the purpose of securing additional benefits.

Insured agricultural workers who work only intermittently for wages may make voluntary payments for the time during which they are unemployed and still be considered compulsorily insured, provided that they work for wages at least 120 days in the year and that the voluntary payments are equal to at least 10 per cent of the average daily wages in the agricultural region in which they are employed.

Liability to compulsory insurance ceases at the age of 60 years, but the wage earner may defer retirement up to the age of 65. In this case he continues to be insured against the different risks while he continues at work but is relieved of the payment of contributions. The employer's contribution of 5 per cent is required for all workers, either French or foreign, employed by him whose retirement is thus deferred.

Sickness Insurance

SICKNESS insurance provided by the law covers the costs of general and special medical care, medicines and appliances, costs of treatment in hospital or sanatorium, and the cost of necessary surgical operations for the insured person, the husband or wife as the case may be, and the children under 16 years of age who are not wage earners. The medical care is provided under the following rules:

The insured person has free choice of a physician. Medical consultation must take place at the office of the physician unless the condition of the insured person does not permit. If medical care has

to be given in the home, however, the insured person is limited to the services of physicians or midwives in the commune or if there are none they must be chosen from the nearest commune. When the insured person wishes to consult another practitioner than the one chosen, or in general any practitioner whose fees are higher than those fixed by agreement between the insurance funds and the professional organizations, the difference must be paid by the person insured.

Treatment either at home or in a hospital or other center is regulated by agreements between the insurance funds and the professional organizations, account being taken of the ordinary rates and of the local rates resulting from these agreements.

The cost of treatment is paid for by the fund, or the insured person is reimbursed for the treatments, depending upon the terms of the contract. The share of the medical costs paid by the insured person, irrespective of any he may be required to pay through securing more expensive medical attention, is fixed by the insurance fund at between 15 and 20 per cent and that of the pharmaceutical and other costs is uniformly fixed at 15 per cent of the total.

After experience of at least two years, each insurance fund will be authorized, upon its demand and after receiving permission from the Superior Council of Social Insurance, to reduce the percentage which the insured person pays for treatment, as well as the waiting period before he is eligible for a cash benefit. The general insurance fund (*Le Fonds de majoration et de solidarité*) can be called upon to make up any deficit caused by the reduction in the payments of the insured persons.

Medical service is due from the date of the sickness or of the preventive treatment which is that of the first medical consultation, and may be given for a period of six months. Any relapse occurring within two months is considered as a continuation of the first sickness.

If the sick insured person is unable to continue or resume work, this fact being attested by a medical certificate, he is entitled to a cash benefit equal to half his average daily wages for every workday lost. This benefit dates from the sixth day following the beginning of the sickness or accident and lasts until recovery, subject to a maximum period of six months. The average daily wage is obtained by dividing by 300 either the amount of the wages received during the 12 months preceding sickness or by taking the current wage of a worker in the same occupation and working under the same conditions. The daily benefit will be increased to a total of 60 per cent of the wages when the insured person reports a normal amount of work during the year the wages for which do not, however, equal a minimum amount fixed annually by decree.

In order to be entitled to medical service and the cash benefits, the insured person must have paid his contributions regularly for 60 days during the three months preceding the sickness.

During incapacity the general insurance fund pays into the account of the pension fund the worker's share of that part of the contributions which would go to the old-age risk. This is calculated on the average of the payments to the account of the insured for the 12 months preceding the sickness and on the basis of 300 days.

The insured person is entitled to consultation and treatment in dispensaries, clinics, hospitals, and sanatoriums, depending upon the

insurance fund from which he receives assistance or with which he has a contract. In case of hospitalization the costs paid by the fund will be limited to the rates charged in hospitals of the poor relief board. The cash benefits to which the insured person can lay claim are reduced, in case of hospitalization, one-third if he has one or more children under the age of 16 or one or more of his parents or grandparents living with him, one-half if married and without such dependents, and three-quarters in all other cases.

General control over all the services connected with the sickness insurance is in the hands of the insurance fund, and all beneficiaries are required to comply with the conditions prescribed by a general regulation. In case of disagreement between the insured person and the doctor as to his physical condition, or if the management of the fund considers that he should be reexamined, his condition is determined by a technical committee consisting of the attending physician, a physician chosen either by the insured person or by the insurance fund, according to the particular case, and a physician appointed by the justice of the peace. If it is a question of permanent disability, the third physician shall be a specialist appointed by the president of the civil court. In case of fraud the fund will seek reimbursement.

The agreements reached between the insurance fund, the physicians' associations, and the establishments furnishing the medical care are submitted to a tripartite commission made up of an equal number of representatives of the various insurance funds, the physicians, and the social insurance office. This commission, in addition to the control of the medical service, is charged with the prevention and settlement of difficulties arising in the different services or between them and has authority to fix penalties, subject to the power of appeal to the permanent section of the Superior Council of Social Insurance. Particularly it will arbitrate, subject to appeal as above, questions which arise between the contracting parties in the application of the said agreements.

Sickness and injuries covered by workmen's compensation are excepted from benefits under this act as well as any infirmity resulting from the intentional fault of the insured person. Payment for injuries and sickness covered by the legislation on military pensions is guaranteed by an extra contribution paid by the State to the funds corresponding to the increased risks supported by the said funds.

Maternity Benefits

DURING pregnancy and the six months following confinement of an insured woman or the wife of an insured person, medical care and medicines are provided subject to the general rules governing ordinary sickness insurance. Such woman will be entitled to a daily benefit equal to one-half her average daily earnings for six weeks before and six weeks after confinement, on the condition that she gives up all work for wages during that period and that her contributions to the fund have been paid regularly for 60 days during the three months preceding pregnancy. In case of pathological conditions associated with the pregnancy, necessitating application for sickness or invalidity insurance, this insurance runs from the date of the morbid condition, or if it lasts longer than six months and the

degree of incapacity amounts to two-thirds the person receiving insurance is entitled to invalidity insurance. A monthly nursing benefit for a period not exceeding one year is paid if the insured person has paid her insurance contributions during the three months preceding confinement. This benefit amounts to 100 francs during the first two months, 75 francs the third, 50 francs from the fourth to the sixth, 25 francs from the seventh to the ninth, and 15 francs for the remainder of the year. An insured person who is unable to nurse her child may receive a milk allowance, not exceeding in value two-thirds of the nursing bonus. The nursing and the milk allowances are not paid to women not insured in their own right. The payment of the maternity benefits is subject to compliance by the beneficiary with the provisions of the insurance fund for periodic visits to the home and regular attendance in maternity and nursing clinics.

Invalidity Insurance

INSURED persons who are incapacitated either as a result of sickness or accident so that their working capacity is reduced at least two-thirds are after six months entitled to an invalidity pension. If the insured person contests the decision as to the degree of incapacity, a new examination of his records is necessary and the technical commission passes upon his case. Final appeal may be made to the permanent section of the Superior Council.

For persons insured before reaching the age of 30, the disability benefit is equal to at least 40 per cent of the annual wages, based on the average fees paid each year. This amount is increased, up to a maximum of 50 per cent of the annual wages, by 1 per cent of the wages for each year of at least 240 workdays in excess of 30 years. For persons insured after the age of 30 the amount of the benefit is reduced by one-thirtieth for each year between that age and the age at entrance, If payment of contributions has been discontinued for one year or more during the insurance period, the disability benefit is reduced one-thirtieth for each year that it has not been paid. The minimum benefit for persons insured after the age of 30 is 1,000 francs if they have contributed to the insurance fund for at least six years, but this amount will be diminished 100 francs for each year of membership under six to a minimum of 600 francs.

In order to receive an invalidity benefit a person must have been a member of the fund at least two years and have made payments representing at least 480 days of work during the two years preceding the sickness or accident.

The invalidity pension period is fixed provisionally at five years, during which time the insured person shall receive medical care and medicines, the daily cash benefit being reduced in case of hospitalization. During this time, and under penalty of having his pension suspended, the pensioner must submit to any visits of physicians demanded by the insurance fund. Traveling expenses of pensioners who may be required to leave their place of residence in order to be examined are paid by the insurance fund. The pension stops when the working capacity is restored to more than 50 per cent.

At the expiration of five years and after expert medical advice the pension is funded and after another five years the pensioner must,

upon the demand of the insurance office, be given a final examination, after which he is transferred to the old-age insurance fund. The old-age pension begins normally at 60 years but may begin earlier, if there is permanent incapacity for work, but with a proportionate reduction.

Old-Age Insurance

UNDER the old-age insurance provisions wage earners are retired at the age of 60 but the insured person may defer retirement until the age of 65. For the transition period during which the scheme is being put into effect a minimum delay of five years is required before a retirement pension is allowed, but this can not be extended for any insured person beyond the age of 65.

The retirement pensions amount to 40 per cent of the average annual wages for persons between the ages of 60 and 65 who have contributed to the scheme for at least 30 years, with a minimum of 240 days' labor in each year. When the wages are less than a certain fixed minimum the amount serving as the basis for the computation of the pension will be increased up to a maximum of 10 per cent of the wages. For persons retired during the transition period before the law becomes fully effective, the pension will be equal to one-thirtieth of the normal pension for each year the contributions have been paid, with a minimum of 600 francs per year.

Pensions are payable at the end of each quarter.

The insured person can claim his pension at the age of 55 if he has contributed to the fund for at least 25 years, but there will be a corresponding reduction in the amount of the pension.

An insured person claiming a lump-sum settlement of his pension (*capital aliéné*) may demand: (*a*) The capital value in excess of 1,000 francs for the purchase of land or a house which shall become nontransferable and nondistrainable under the conditions fixed by law as to the constitution of nondistrainable family property, such investment being subject to the approval of the insurance fund and carried out under its control; (*b*) that the capital representing the pension shall be converted into an annuity half of which on his death shall revert to the surviving husband or wife at an age not earlier than 55. In this case the pension will be reduced so that it will not result in any additional charge for the fund.

Death Benefits

THE death benefits payable to the heirs of the insured person are fixed at 20 per cent of his average annual wages, determined according to the regulations for disability pensions. The minimum amount is 1,000 francs for persons who have made their annual contributions regularly, except where the annual wages are less than that amount, in which case it may not exceed two-thirds of the average annual wages of the deceased. The benefit is payable to the surviving husband or wife or other heirs either descendants or ascendants. At least one year's contribution toward the death benefit must have been made.

Benefits for Family Expenses

PAYMENT for family expenses is made in case of the sickness, invalidity, pregnancy, or death of an insured person for each child in the family between the ages of 6 weeks and 16 years. The allowances for each child consist of a daily benefit of 0.50 franc, a sickness benefit of 100 francs a year, and a death benefit of 100 francs. If both husband and wife are insured these allowances are paid but once. Widows having three or more living children under 13 years of age are entitled to a temporary orphan's allowance of not less than 90 francs per year for each child, beginning with the third. When both the father and mother are dead each child under 13 is entitled to the allowance, and also those up to the age of 16, if apprenticed, in school, or invalids, unless in the latter case they are being cared for in hospitals at the expense of the State. These provisions apply only where the insured persons have paid at least one year's contribution.

Benefits Guaranteed During Unemployment

PERSONS of French nationality who are compulsorily insured and who are involuntarily unemployed through lack of work are guaranteed the payment of the 10 per cent contribution to the social insurance fund for 3 months in a period of 12 months an unemployment benefit if they have been affiliated to the social insurance system for an entire year before the period of unemployment. The insured person retains his right to insurance during a period of six months. During the first three months of unemployment, benefits are guaranteed on the basis of the average wages prior to unemployment and during the last three months on half of the average wages.

The unemployment guaranty is secured by a deduction of 1 per cent of the total contributions. This amount is deposited in the general insurance fund, but financially and juridically the account is separate from the other social insurance resources. When the amount of the fund reaches a sum greater than the total deposits of the last year recorded, various authorized unemployment funds may receive grants from this surplus on permission from the permanent section of the Superior Council on Social Insurance. The amount of these grants may not exceed 33 per cent of the benefits paid by these funds during the preceding year.

Authorized unemployment insurance funds include those organized by the Departments and communes, special funds connected with a trade-union, federation of trade-unions of the same occupation or industry, mutual-aid societies made up principally of members belonging to the same occupation or industry, or agricultural mutual insurance funds governed by the law of July 4, 1900.

The central and regional labor offices are intrusted with the control: (*a*) Of the above institutions and funds which are allowed to receive subsidies; (*b*) of unemployed insured persons.

Administration of Insurance Funds

THE administration of the social insurance system in each Department is in control of a single fund, which can open accounts for all the persons enrolled, and of various primary funds. These organi-

zations which function under the departmental plan are constituted and administered according to the law of April, 1898, on mutual-aid societies, and under the present law they operate for the covering of risks and the payment of benefits. Various funds organized under the insurance laws of 1884, 1898, 1900, and 1910 may form a primary fund.

Under the present law all insured persons belonging to one of the existing funds are required to choose within two months after the law becomes effective to which primary fund they will subscribe. Both the departmental and the primary funds must elect within three months an administrative council, having at least 18 members, half of whom, at least, are chosen from the insured members, two physicians chosen from a list presented by the physicians' association, and, with the exception of primary funds founded by the insured, at least six employers chosen from a list submitted by the employers of the persons insured in the fund.

Primary and departmental funds must be approved by the National Social Insurance Office, and this approval may be withdrawn in case of irregularities or when the fund does not function properly.

Departmental funds may transfer to the primary funds the part of the fee which the members pay for the special risks covered by each fund, but the departmental fund is responsible for the operations of the primary fund. The departmental funds may group themselves into regional unions and a national federation for the purpose of organizing various services such as social hygiene, hospitals, sanatoriums, dispensaries, and convalescent and rest homes.

Insurance funds must open special accounts for the various types of insurance covered. Departmental and primary funds have a civil and juridical status, and a special representative is appointed in legal cases. They function under the control of the National Social Insurance Office.

The funds can not in any case appropriate for administrative expenses a percentage of the resources greater than that fixed by the Minister of Labor within the maximum limit of 3.5 per cent of the contributions received. The insurance funds must deposit either in the Government Deposit and Consignment Office or in the Bank of France all money in excess of the reserves, which they are authorized to retain. A general administrative regulation will govern the financial management of the insurance funds.

Voluntary Insurance

FARMERS and agriculturists not covered by compulsory insurance, artisans, small proprietors, nonsalaried intellectual workers, and in general all persons who, without being on a salary, live principally on the products of their labor may take out voluntary insurance if they are of French nationality and their earnings do not exceed 18,000 francs, this maximum being increased by 2,000 francs for each child beginning with the third and reduced by 3,000 francs if the insured person has no children. Persons whose earnings have increased beyond the limit fixed for wage earners and who, therefore, cease to be compulsorily insured may be voluntarily insured if their income does not exceed the limit fixed for wage earners by more than 1,000 francs.

All persons taking out voluntary insurance must be under 50 years of age and free of acute or chronic disease or any disability which might increase the tendency to sickness. Such persons may be retired at 60 years of age after contribution to the fund for at least 10 years. The insured person may fix his contribution within the limits of 5 and 10 per cent of his total earnings but no assessment may be less than 300 francs a year, payable at least quarterly. The annual income of persons carrying voluntary insurance is determined according to the income tax returns or, in cases where the insured does not pay an income tax, the insured person's declaration is accepted. Voluntarily insured persons may be covered for all or part of the risks included in the law. They can not, however, be insured for sick benefits to exceed 25 francs per workday, for a death benefit in excess of 3,600 francs, and for disability or old-age benefits in excess of 8,000 francs. Sickness insurance ceases in all cases at the age of 65.

Persons voluntarily insured are entitled to the benefits for family expenses under the same conditions as those compulsorily insured.

A reserve of at least 5,000,000 francs must be set aside each year in the general insurance fund to the credit of this group.

If the income of persons voluntarily insured exceeds at any time the maximum allowed, the insured person is notified that within six months from the date of the notification he will cease to be entitled to sickness insurance and that the contributions he continues to pay will be appropriated to insurance against death, invalidity, and old age, unless he prefers to reduce his contribution corresponding to the share set apart for the sickness insurance. Voluntarily insured persons who become wage earners may maintain their rights acquired under voluntary insurance.

Wives of either class of insured workers who do not earn wages may take out voluntary insurance if they take advantage of this opportunity within six months after this law becomes effective, or within six months after marriage if they are under 35 years of age, or upon their retirement from compulsory insurance. For this special insurance they are considered as compulsorily insured upon an assumed salary of 1,200 francs and their contribution is fixed at 10 francs per month. They are not entitled to the daily benefit in case of sickness nor to the 1,000 francs death benefit. No invalidity pension is paid except in cases of total incapacity to attend to household duties. Half of the contribution is reserved for the establishment of an old-age pension, invested in an individual account. The mimimum amount of the invalidity and old-age pension during the transition period is fixed at 250 francs per year. Women thus insured who become widowed or divorced may continue to benefit by the special insurance. They may retain for themselves and their children the right to medical service.

Transitional Provisions

CONSOLIDATION of the insurance funds and organizations carrying the various risks which have been constituted under the various French insurance laws is provided for when the financial condition of the fund is satisfactory, as is also the continuance or

liquidation of insurance contracted for under the different types of insurance toward which the insured persons have contributed.

Employees of the State, the Departments and communes, the railroads and street railways, and miners and quarry workers, registered seamen, and other maritime workers who are subject to the present law will be protected by a special law which will regulate the transference of these workers from the old to the new system. The law also provides safeguards for the insurance rights of war invalids.

General Regulations

PENSIONS up to a maximum of 600 francs are not transferable and can not be seized for debt, except for the payment of the costs of hospitalization. In computing the income tax, the amounts paid to the insurance fund are deducted from the total income by both employers and employees.

Insurance benefits are suspended during military service or in case of war.

Employers in agricultural undertakings will be required to keep a record of the amount paid to each of their workers.

The recipient of compensation under the workmen's compensation law may claim invalidity insurance if the condition has been aggravated by sickness or accident and the total incapacity amounts to at least two-thirds.

Disputes arising in connection with the administration of the law are referred by registered letter to a cantonal committee made up of the justice of the peace, an employer, and an insured person, assisted by the justice's clerk. During the first 15 days of each year the departmental or interdepartmental office will choose for each canton four employees and four insured persons to serve during the year, three months each, on the said committee. Every unexcused absence on the part of either employer or employee from the meetings of the committee will be punished by a fine of 5 to 10 francs. The decisions of the cantonal committees may be appealed to the departmental board.

Various penalties are provided for failure on the part of employers and administrators of the funds to comply with the provisions of the law, for fraud or false declarations, and for attempt to victimize the recipients of benefits.

The law creates a National Social Insurance Office and departmental and interdepartmental bureaus. These bureaus are public establishments and function under the control of the State. Two funds are created by the law, a general insurance fund (*Fonds de majoration et de solidarité*) and a guaranty and compensation fund (*Fonds de garantie et de compensation*). The first fund guarantees the minimum legal pension for invalidity and old age, reimbursement for family expenses, and the expenses connected with the liquidation of the former retirement law, as well as administrative and management expenses of every kind of all the organizations. The guaranty funds are intended eventually to cover the annual deficits of the insurance funds and to guard against insolvency. They are maintained by a deposit of 2 per cent of all the fees received by the insurance funds. This amount will be reduced when the amount of

the capital reaches 20,000,000 francs. Both the funds will be managed by a general guaranty fund organized within 12 months following the promulgation of the law. This fund will be under the control of the Minister of Labor and a Superior Council of Social Insurance composed of 54 members, including the Minister of Labor as president, senators, deputies, representatives of various insurance organizations and funds, economists, physicians, and unemployment officers.

A general order establishing all the regulations necessary for the application of the law will be issued by the Ministry of Labor and other departments and organizations concerned within 12 months after the promulgation of the law. The law becomes effective 10 months after the publication of the said regulation in the Journal Officiel.

New British Unemployment Insurance Act

IN THE Labor Review for February, 1928, a brief account was given of the terms of the new unemployment insurance act which became effective in April of this year. The English Labor Ministry has just issued a summary of the act,[1] giving details as to its terms, method of administration, procedure for claiming benefit, disqualifications for the receipt of benefit, constitution of courts of reference, and the like. The portions of most general interest concern the contributions by which the system is supported and the amount of benefit which can be claimed. Up to July, 1928, the weekly rates of contribution are as follows:

WEEKLY RATES OF CONTRIBUTIONS UNDER NEW BRITISH UNEMPLOYMENT INSURANCE ACT

Sex and age	Employer's contribution	Employee's contribution	Government's contribution	Total
	Pence[1]	*Pence*[1]	*Pence*[1]	*Pence*[1]
Men aged 18 to 65	8	7	6	21
Women aged 18 to 65	7	6	4½	17½
Boys aged 16 and 17	4	3½	3	10½
Girls aged 16 and 17	3½	3	2¼	8¾

[1] Exchange rate of penny for February, 1928=2.03 cents; of shilling, 24.37 cents.

On and after July 2, 1928, new rates will be introduced for those aged 18 but under 21, the rates for those above and below this age group remaining unchanged. For young men aged 18, 19, and 20, the employer will contribute 7d., the employee 6d., and the Government 5¼d., making a total of 18¼d., while for young women of these ages the corresponding contributions will be 6d., 5d., and 3¾d., making a total of 14¾d.

[1] Great Britain. Ministry of Labor. Summary of Unemployment Insurance Acts, 1920-1927. London, 1928. Cmd. 3035.

The new weekly rates of benefit, effective April 19, 1928, are as follows:

	Shillings
Men aged 18 to 65	17
Women aged 18 to 65	15
Boys aged 16 and 17	6
Girls aged 16 and 17	5
Dependents' benefit:	
For an adult dependent	7
For a dependent child	2

Beginning July 5, 1928, the following additional changes in rates will become operative for young men and young women 18 to 21 years of age, who are not in receipt of dependent's benefit (the rates in all other cases, including those of young men and young women who are in receipt of dependents' benefit, remaining as above):

Young men not in receipt of dependents' benefit, aged 20, 14s. per week; aged 19, 12s.; aged 18, 10s. Young women not in receipt of dependents' benefit, aged 20, 12s. per week; aged 19, 10s.; aged 18, 8s.

The qualifications imposed upon the payment of dependents' benefit are gone into fully. The 7s. a week benefit for an adult dependent may be claimed only in respect of the following:

A wife living with the claimant or being maintained wholly or mainly by him.

A female person residing with the claimant (male or female) and wholly or mainly maintained by the claimant, if that female person has the care of the dependent children of the claimant.

A dependent husband if he is prevented by physical or mental infirmity from supporting himself and is being maintained wholly or mainly by the claimant, his wife.

A widowed mother, a widowed stepmother, a mother who has not been married, or a mother whose husband is permanently disabled and unable to work, if living with the claimant and being wholly or mainly maintained by him or her.

The additional benefit of 7s. a week can be received only in respect of one dependent at a time and is not payable for a wife or female person who is in receipt of unemployment benefit or who is in regular wage earning employment or is engaged in an occupation ordinarily carried on for profit.

The 2s. a week benefit for a dependent child is payable in respect of any child under 14 maintained wholly or mainly by the claimant, and for a child aged 14 or 15 who is attending a day school during its whole sessions, and is wholly or mainly maintained by the claimant. Stepchildren and adopted and illegitimate children are included in this class.

A person aged 65 or over may not claim unemployment benefit, as at that age he becomes eligible for the old-age pension of 10s. a week. If he continues in employment after reaching 65, the employer must continue to pay the weekly contribution of 8d., but the contributions from the employee and the Government cease.

It is believed that the rates of contribution set in this act are higher than will be necessary when once employment has become normal again, and consequently it is provided that when the debt of the unemployment fund shall have been wholly paid off and the fund is, in the opinion of the treasury, solvent, the rates shall be reduced. Under certain circumstances the employer's rate of contribution may be reduced to an equality with the worker's present rate before the general reduction is made.

Memorandum on Unemployment Insurance in Great Britain

UNDER this title the British section of the International Association for Social Progress has recently issued a brochure containing a survey of the unemployment insurance system, with an appraisal of its advantages and disadvantages. Beginning with a brief résumé of the system, the report takes up the various criticisms made against it. The most important of these is that the system has been so changed from its original form that it is no longer in any real sense an insurance scheme. It is claimed that the administrative checks on applicants have not been applied, that the limitations on the amount of benefit have been relaxed, that benefits have been introduced which were not originally contemplated, that the plan is in debt, and that it has become merely a "system of the dole."

As to these charges, the survey points out that it is impossible to apply the strict principles of insurance in the face of an unprecedented calamity, such as the industrial depression since the war. The charge as to the dole is held to be unfounded, since the Government is not assuming any greater share of the cost than was at first intended. Admittedly, the system is in debt, but that is a mere matter of business credit, which can and doubtless will be cleared when trade improves. It is true that the scheme in its present form modifies accepted actuarial principles by providing for the insurance of all workers in the insured trades by means of premiums paid by, or in respect of, only those who are actually employed, but this is defensible on the ground of necessity:

> In the time of unexpected crisis we tampered with the veritable principles of insurance in order to provide through the existing machinery, though with as close resemblance to the old principles as possible, for the needs of millions of the population. The alternatives were a great and unprecedented increase in public and private charity, relief tickets, clothing and grocery gifts, etc., accompanied by danger of riots, or even revolution because of the disappointment of expectation after the war, and a modification of the conditions attached to the grant of benefits. No British Parliament would starve its citizens on the grounds of strict adherence to social-insurance principles.

Another charge against the system is that it interferes with the mobility of labor, as between one place and another and one employer and another. The remedy, it is suggested, is to extend the system to cover all industries and to improve its working. The charge that those drawing the benefit do not look for work is not tenable. The employment exchanges themselves are registering all possible vacancies and presenting them to the unemployed, and it is rare indeed to find one which is not speedily filled. Considering all the various objections, it is admitted that the plan needs extension and that with it should be linked all possible devices for lessening unemployment, but it is claimed that there is a decisive balance of advantage in favor of the system.

> It has strengthened all the forces making for social stability during a period of postwar convulsions. Without it, responsible people have declared, we should have had to face a revolution. The health of the community has been maintained, and, indeed, that of the children has been improved during a period of great stress—an amazing achievement. In spite of the lack of provision it has been possible by means of insurance to finance the unemployed during a period of grave need without unduly burdening any one section of the community. Certainly, if the same sums had been found through the rates, industry would have borne a much heavier burden.

There are at present, it is pointed out, two main questions concerning unemployment insurance, the first relating to the principles on which rates of benefit should be determined, and the second dealing with the desirability of making unemployment insurance a part of a comprehensive unified system of social insurance.

At present, benefits are fixed on the general principle that they should be definitely less than the general laborer's wage rate, in order that there may be no temptation to prefer benefits to work. The objection to this is that since the general laborer's wage rate is barely sufficient for support, if benefits are lower it becomes absolutely essential in many cases to supplement them with poor relief. It is estimated that in December, 1926, about one-half the insured population who were out of work were also receiving poor relief. The disadvantages of this, when the worker is considered, are obvious, but it is equally unfortunate for the employer. Poor-law relief is paid from the local taxes, or rates, so that the greater the unemployment in a given area the more heavily are the employers and property owners taxed for the support of the poor, and the less likely it becomes that any new industries will be established where the rates are so heavy. Unemployment benefits, by contrast, are paid from a fund raised throughout the nation, so that the depression of one locality may be offset by the prosperity of another, and the burden is so diffused that no one place or industry suffers unduly. The inference is plain that unemployment benefits should be sufficient in amount to free the recipient from the necessity of appealing to the poor-law authorities to supplement them. The proper amount, however, is a matter demanding careful study and experimentation. It is suggested that benefits might properly bear some relation to wages received when at work, a plan which has been tried successfully in several European countries.

Turning to the second question, it is claimed that the establishment of a unified scheme of social insurance, including unemployment insurance, would be desirable. At present there are a number of forms of social insurance, controlled by different agencies and worked out on different principles, which cover many of the necessities of the worker's life, but in which there are anomalies and contradictions and gaps which hinder the successful working of the social organization. The adoption of a comprehensive, unified system would call attention to the whole matter of social emergencies, thus encouraging steps for prevention, insurance for every kind of risk could be provided more cheaply, higher benefits could be given, and the workman, dealing with only one body, would have a clearer idea of his rights and would know better how to claim them. Moreover, it could be far more efficiently managed than the present variety of schemes. And, as a final advantage, the machinery for carrying through such a scheme has already been established in the employment exchanges, which, slightly modified, might well become the State insurance office for administering all branches of social insurance.

Workmen's Compensation in the Fishing and Lumber Industries of Nova Scotia

THE outstanding event of the year 1927, as regards workmen's compensation in Nova Scotia, was the loss of four vessels of the Lunenburg fishing fleet with all on board. In this connection the Workmen's Compensation Board of Nova Scotia, in its recent report, states:

> In the early part of 1927 the board found it necessary to increase the assessment rates in the deep-sea fishing industry as carried on by the Lunenburg fleet of fishing schooners owing to the loss of two schooners in 1926 with all members of both crews, numbering 50 men. After a notice of the increased rate had been sent to the owners a large delegation from Lunenburg County appeared before the Government and represented that the fishing industry could not stand the increase in the rates, with the result that an act was passed on the 11th of March, 1927, preventing any increase in the rate of assessment for 1927 upon owners of vessels engaged in the fishing industry.
>
> Shortly after the passing of that act a commission was appointed by the Government to make an inquiry to ascertain whether the rate levied upon the fishing industry unduly affects that industry, and if so, to what extent, and if the rate that the industry is able to pay is not sufficient to cover the accident loss, to ascertain what other system of insurance, if any, would be practicable.
>
> In August, 1927, while the commission was conducting its investigations, another most unfortunate disaster occurred when four vessels of the Lunenburg fishing fleet were lost with all their crews [83 men], in the neighborhood of Sable Island. * * *
>
> The compensation loss was estimated to be over $200,000. The amount would have been much larger but for the fact that there were on board the vessels 19 men whose dependents were not entitled to compensation as they live in Newfoundland.

After the Workmen's Compensation Board of Nova Scotia had pointed out that existing rates in the fishing and lumbering industries were not sufficient to meet the actual risks during the period that the act had been in force and after representatives of the fishing and lumbering industries had intimated that any further increase in their assessments would threaten their continued existence, the Government of Nova Scotia, in July, 1927, appointed a royal commission to investigate the ratings of the Lunenburg fishing fleet and the lumber industry as applied by the workmen's compensation board of the Province. Mr. Carl D. Dennis was appointed commissioner and was instructed to inquire whether the rates and assessments levied by the board adversely affected the fishing and lumbering industries; to investigate the board's method in determining and levying rates upon the owners of fishing vessels in the county of Lunenburg; and to ascertain whether the present rates could be increased without detriment to the industry. If the present rate was found insufficient to provide compensation for the losses sustained, the commission was to suggest what other system of insurance might be practicable.

The case for the fishing industry was set forth in a petition of shipowners and masters of the Lunenburg fishing fleet, which is conducted on a cooperative basis, under a system of shares. The petition called attention to the exceptional severity of the losses sustained by the fleet in 1927, pointing out that no such disasters had been experienced in the past 40 years or would probably happen again, and it was suggested that the loss of life in 1927 called for special assistance from the Government for relieving the already heavy burden of assessments.

The report of the commission was summarized in the Labor Gazette of the Department of Labor of Canada for February, 1928. This summary reviews the profits to the industry; the existing rate of 5 per cent; other possible rates sufficient to cover losses and the problem of contribution of part of this rate by share fishermen. The findings of the commission are that the industry can not take care of its present enormous deficit; that it can not assume a rate much greater than the present assessment; that a new rate on a higher wage basis, divided equally between the share fishermen and the owners, could not be paid by the owners and still leave a margin of profit, might not receive the approval of the share fishermen, and the division of the rate might be a dangerous precedent; that a rate of 7.15 per cent could be obtained from underwriters under private insurance with limited coverage and limited liability if the fishing industry were released from the operation of the act. The commissioner concluded that there was no apparent solution within the scope of the workmen's compensation act. "Consequently," he said, "we are forced back upon some solution outside of the act." The commissioner pointed out that nowhere except in Nova Scotia had the fishing industry been included under a workmen's compensation act. He said that—

> The experience of the last eight years shows conclusively that it has not been workable in Nova Scotia, and that since it is unsound economically to so burden the owner that he will no longer find his business a profitable one, and consequently cease, and in ceasing throw the fishermen out of employment, the obvious way out is to release the fishing industry absolutely from the act. * * *
>
> Being mindful of the many perils that the fisherman in his arduous task of wresting a mere existence from the sea experiences and fully realizing the terrible toll of human life—fathers, brothers, and sons—which is yearly exacted as part payment for this mere existence, the commission feels that every consideration should be shown to the members of the industry in their effort to find a solution of their problems, and has at all times felt the greatest sympathy for them, but stern economic factors force the foregoing solution upon us all. There seems to be no other way out.

In conclusion the commission said:

> Taking into consideration that the fishing industry is a class so diversified from land industries, both in its operations and its hazards, this commission feels that it is justified in taking up a solution beyond the scope of the act. Therefore, the only solutions that seem feasible are that—(*a*) The industry be relieved of deficit to the end of fiscal year 1927, and that owners in industry be permitted to withdraw from operation of part 1 of the act, and insure their own risk, such insurance to cover the sharesmen and others, and give the same benefits and protection as the workmen's compensation act. (*b*) Release the industry from the act absolutely.

With regard to the lumber industry the findings of the commissioner were that there was no immediate necessity for increasing the existing rates and assessments levied and that the existing rate compared very favorably with the rates in other Provinces.

Report of the Nova Scotia Workmen's Compensation Board

THE report of the workmen's compensation board of Nova Scotia for the year 1927 contains a detailed study of accidents for the year 1926 as well as its more general report on its experience during the year 1927. The following table shows the accidents compensated in 1927:

NUMBER OF ACCIDENTS COMPENSATED IN 1927, BY INDUSTRY CLASS

Industry class	Accident claims finally disposed of in 1927						Total
	Temporary disability		Permanent disability	Deaths	Total	Claims partially disposed of	
	Compensation	Medical aid only					
Mining	2,116	221	62	31	2,430	228	2,658
Lumbering and woodworking	1,059	180	47	3	1,289	171	1,460
Iron and steel	346	422	17	6	791	36	827
Manufacturing and operating not otherwise specified	265	142	8	1	416	36	452
Building and construction	107	52	5		164	28	192
Public utilities	122	75	2	3	202	15	217
Transportation	216	123	10	2	351	26	377
Shipping and navigation	35	6	5	54	100	8	108
Provincial highways department	83	20	1	3	107	20	127
Dominion Government employees	165	23	6	4	198	99	297
Total	4,514	1,264	163	107	6,048	667	6,715

The 667 cases partially disposed of include 9 death cases. The total number of accidents reported for the year 1927 was 7,424.

LABOR LAWS AND COURT DECISIONS

Individual Labor Contract in New York

THE Interborough Rapid Transit Co. of New York has not been successful in its attempt to enjoin labor union organizers from soliciting its employees to become members of an independent labor union.

The company is a public service corporation which operates a system of rapid transit railroads in the city of New York. After a general strike of the operating employees in 1916 a company union was formed, called the Brotherhood of Interborough Rapid Transit Co. Employees. Substantially the whole body of employees of the Interborough Co. joined the brotherhood. It adopted a constitution, later approved by the board of directors of the Interborough Co., which provided that newly employed persons shall be eligible for membership and, as a condition of employment, they shall agree to join the brotherhood and to accept its obligations, and that all applicants for membership in the brotherhood "shall take the obligation." This was in effect an agreement by the employee to remain a member of the brotherhood during the time of employment and not to become identified in any way with the Amalgamated Association of Street and Electric Railway Employees of America.

Certain former employees who had been leaders in the 1916 strike were not reemployed. By various means these former employees continued to urge the employees of the Interborough Co. to become members of the Amalgamated Association, and the company brought suit against these organizers and others to secure an injunction and damages. An injunction of the broadest terms was granted pending the litigation. This injunction was taken up to the Court of Appeals of New York. The Interborough Co. contended that the employees had agreed collectively that they would not join or become identified in any manner with the Amalgamated Association and that the former employees against whom the injunction was secured may not lawfully induce the employees to break this contract.

The court in its decision handed down January 10, 1928, decided that the constitution of the brotherhood was not in terms or effect a contract between the employer and the brotherhood or its members, but was a factor recognized by both sides in the relations of the employer and employees. The court pointed out that the relations of the company and its employees were based on mutual consent, each having freedom of contract, that the employer had not contracted with the employees to employ them for a definite period nor had the employees bound themselves to continue in the Interborough Co.'s employ longer than they desired, and that the employment was terminable at the will of either party at a moment's notice. The court said that where employees have freedom of choice, a labor union may not be accused of malicious interference when it urges the employees to make that choice in its favor, even though that choice

may involve termination of present employment and consequent disruption of a business organization. It was not necessary, therefore, and the court did not decide whether employees may lawfully be urged to make a choice in breach of a definite contract.

It appeared that the organizers against whom the injunction was sought urged the employees to join the union and to conceal that fact from the company. The court held that these organizers were under obligation to the Interborough Co. neither to inform that company that its employees were joining the Amalgamated Association so that the company might exercise its choice in retaining or discharging such employees, nor to urge or compel the new members of the Amalgamated Association to inform the Interborough Co. of the fact that they joined the union. The question of whether the persons against whom the injunction was aimed were justified in urging the new members of the Amalgamated Association to conceal facts which, if disclosed, would lead inevitably to their discharge was not argued before the court and was therefore not decided. The court decided that these organizers may not be enjoined from inducing employees, by lawful means, to leave the service of the plaintiff or to join an organization of employees other than the brotherhood and to make demand upon the Interborough Co. for increased wages. The court decided, however, that in so far as the injunction enjoined acts of trespass upon the Interborough Co.'s property and similar acts, it was justified by the record. (Interborough Rapid Transit Co. *v.* Lavin, 159 N. E. 863, decided January 10, 1928.)

Case Involving Contract Specifying Term of Employment

ANOTHER case involving somewhat similar facts came before the supreme court of the State in March, 1928. The facts in this second case were different in that a contract was entered into between the Interborough Co. and the brotherhood on June 30, 1927, by the terms of which the company agreed to employ members of the brotherhood, and the brotherhood, in behalf of its members, agreed that its members would work for the company for a period of two years from April 30, 1927, upon certain conditions set forth in the contract. Thereafter each of the Interborough Co.'s employees was required to sign an instrument declaring that the employee had read or heard read the contract between the company and the brotherhood and had ratified and approved the same, and that he would remain in the employ of the company until April 30, 1929, "unless in the meantime, by mutual consent, my employment is sooner terminated." Each employee further agreed that he would remain a member of the brotherhood and faithfully observe its obligations, and that he was not and would not become during the period of employment a member of or identified with the Amalgamated Association. Certain organizers of the Amalgamated Association with full knowledge of this two-year contract continued to organize the employees and planned to call a strike on July 26, 1927, but, after conferring with the mayor of the city of New York, announced the abandonment of the strike. Thereafter, by various methods, they continued their efforts to organize the employees of the Interborough Co. as members of the union.

The Interborough Co. brought a suit against William Green and others in which an injunction and damages were sought. The company contended that the contract between it and the brotherhood involved mutual rights and obligations and was therefore made upon ample consideration. The persons against whom the injunction was sought contended that the contract was without consideration and, because of the conditions to which it was made subject, should fail in equity. This latter contention was upheld and an injunction refused. The court said, after examining clauses 5 and 6 of the contract, that "unlimited and practically unhampered power to discharge employees is given to the company. Even as regards the causes of discharge listed as arbitrable, as, whenever the services of the employee 'shall be rendered unnecessary by reason of any change in economic conditions or the seasonal requirements of the company,' or 'by reason of the adoption of any new device or the extension of the use of any existing device,' arbitration here would merely establish that the causes exist and that therefore the company may discharge. The contract purports to bind the employee for two years, while the employer is not in substance subject to a reciprocal obligation. Where an employee abandons all right to leave the service of his employer, whereas the employer reserves practically entire freedom to discharge him, there is no compensating consideration." The court also said, "whatever the status of the contract at law, the provisions above referred to are, to say the least, inequitable. The term of the contract is, in effect, controlled by the will of the employer and plaintiff [the Interborough Co.] is therefore in no better position than it was in the Lavin case. * * * In the view that I have taken of the contract it only remains to determine whether the commission of, or threat to commit, such acts on the part of defendants has been established as would justify a court of equity to intervene. * * * Upon the record before me I do not find such conditions to exist. Inducing the breach of promise to work is not involved. It has not been established that violence, threats, fraud, or overreaching conduct have been used to induce plaintiff's employees to become members of the Amalgamated Association, nor that other acts have been committed or threatened which would warrant the issuance of a restraining order." (Interborough Rapid Transit Co. *v.* Green et al., 227 N. Y. Supp., 258, decided February 15, 1928.)

Two New Chinese Labor Laws

THERE was little development along the lines of national labor legislation in China in 1927. The Peking Government, however, promulgated two labor laws in the latter part of that year which are worthy of mention. A summary of these provisions is reproduced below from the February, 27, 1928, issue of Industrial Labor and Information (Geneva), which states that these regulations are actually enforced in only a very limited area.

The factory regulations, drawn up by the department of agriculture, industry, and commerce, and sanctioned by a decree of the generalissimo dated October 27, 1927, take the place of the provisional factory regulations of 1923. The salient feature of the new law is that besides numerous modifications or improvements

made in respect of hours of work, rest periods, minimum age of admission to industrial employment, etc., it has embodied two new principles—the imposition of penalties for breach of the regulations and a minimum wage for workers—which mark considerable progress in the labor legislation of the Peking Government. In its general form and contents the new law closely resembles the Japanese factory act of 1911 (amended in 1923).

The regulations apply to factories where 15 or more persons are normally employed, instead of 100 as laid down in the previous Chinese factory regulations of 1923. It also applies to places where the work is of a dangerous nature or injurious to health, irrespective of the number of persons employed. The minimum age of admission to factory employment has been raised from 10 to 12 in the case of boys and from 12 to 14 in the case of girls, and the age of "young workers" who may be employed in "light and easy work" has consequently been raised from 10–17 to 12–17 for boys, and from 12–18 to 14–18 for girls. The legal maximum working hours are, as hitherto, 8 for women and young persons and 10 for male adult workers, but the definition of "night work," prohibited for women and young persons, has been extended to include work between the hours of 10 p. m. and 6 a. m. instead of 10 p. m. and 4 a. m. The new law lays down further that the wages paid to workers must be sufficient to maintain the minimum standard of living in the locality. It provides also for accident compensation and old-age pensions. As regards the protection of women before and after childbirth, apprenticeship, factory inspection, work certificates, etc., either provisions have been newly inserted or the existing provisions have been amended in such a way as to raise considerably the present standard of labor protection. Infraction of the law has now been made punishable by a fine not exceeding 300 yuans. New provisions have also been made for appeal in case any person does not assent to any measure taken by the administrative authority.

The new law came into force as from the day of its promulgation, with the sanction of the generalissimo, on October 27, 1927.

The regulations for factory inspection were issued on September 30, 1927, by the department of agriculture, industry, and commerce, in pursuance of a provision laid down in the above-mentioned factory regulations.

According to these regulations the inspection by the competent authority covers such matters as safety and hygiene in factories, education, insurance and the relief of workers, provisions against unemployment, matters relating to workers' unions, harmonization of the relations between capital and labor, protection of women and young workers, minimum wage, apprenticeship, etc. The inspector may order the stoppage of work in either the whole or part of any workshop when he finds such an action justified for the sake of the safety or health of the workers or the public security of the locality. He may order it also in case of infraction of the law or in order to prevent possible accidents. The inspector may, if necessary for the performance of his functions, put questions to any person in the factory or demand the presentation of evidence and various documents. He may also ask for the help of policemen in carrying out his duties. The law lays down many details of factory inspection which are essential for the effective enforcement of the factory regulations and which had not been incorporated in the provisional factory regulations of 1923.

The regulations for factory inspection came into force as from the day of their formal promulgation on November 2, 1927.[1]

[1] For the texts of these laws see Legislative Series, 1927, China 1-2, shortly to be published by the International Labor Office.

WORKERS' EDUCATION AND TRAINING

Week-End Labor Conferences

A RESOLUTION adopted at the 1927 convention of the American Federation of Labor indorsed the action of the executive council of that body in listing as an outstanding achievement of the year "the plan of the week-end conference for the discussion of industrial questions, initiated and sponsored by the workers' education movement," and recommended that all national and international unions, State federations of labor, and central labor bodies extend all possible aid in making the series of such week-end conferences to be held in 1928 successful.[1]

These week-end conferences are an educational measure, being planned by the central labor union of the city and directed by its educational committee or the local labor college. The sessions are generally held in a labor temple on Saturday afternoon and evening and Sunday morning and afternoon—a time convenient for the workers in the city—and a representative of labor presides. At the first session the problem is stated as it presents itself to the workers and an open discussion follows. On Saturday evening the session is frequently in the form of an informal dinner at a nominal cost, at which the significance of the problem is set forth, representatives of labor and of business and an educator discussing it from their different viewpoints. At the Sunday morning session representatives of industry are given an opportunity to present their proposals for the solution of the problem, an open discussion following, and on Sunday afternoon responsible labor leaders present labor's solution of the problem. A summary of the discussions of the conference is the concluding feature.

This, in brief, is the general plan of the week-end conference. It affords in the first place an opportunity to present the various aspects of a labor problem to the membership of labor. In the second place, it brings into the discussion of the problem the point of view of technicians, employers, and educators. No resolutions are passed; no questions of trade-union policy are determined. There is a deliberate attempt to achieve a better appreciation of the problem by labor as well as aiding the public to understand the general question.

Scholarships for Women in Industry

BRYN MAWR and Barnard Colleges are again offering summer courses for women in industry.[2]

The seventh session of the Bryn Mawr Summer School will open at Bryn Mawr College, Bryn Mawr, Pa., on June 15, 1928, and last for eight weeks. Miss Hilda W. Smith, the director of the school, has announced that it has 100 scholarships available for woman

[1] Workers' Education, New York, February, 1928, p. 2.
[2] The Advance, New York, Feb. 24, 1928, p. 7.

workers. Thirty of these scholarships will be given to New York City applicants. The qualifications for applicants are at least two years' experience as a worker, a sixth grade education or the equivalent thereof, and an interest in problems concerning women in industry.

There are 50 scholarships for the courses of the Barnard Summer School which will be conducted at Barnard College in New York City. According to a statement by Miss Ernestina Friedman, the director of this school, "only working women using tools in their trades" are eligible for these scholarships. Women in supervisory positions will not be admitted.

Cleveland Trade School Commencement

THE fourth annual commencement of the building-trades division of the Cleveland Trade School took place on April 26, with the largest number of graduates the school has yet known. The first of these commencements was held in 1925, with 150 graduates, divided among carpentry, plumbing, and bricklaying. This year the graduates number 220, distributed as follows: Bricklayers, 57; carpenters, 61; electricians, 29; painters, 20; plumbers, 43; sheet-metal workers, 10.

The building-trades division of the Cleveland school operates under the Smith-Hughes law, passed by Congress in 1917. The Federal and State boards for vocational education, the local board of education, the building-trades unions, and the contractor associations cooperate in maintaining and developing it. At present there are 36 classes in the six building trades, instruction in each being given by practical journeymen who are members of the local unions. Those who wish to take its training must first give evidence of fitness, both mental and physical, for the trade selected. The applicant is then indentured to an employer, and for four years thereafter his trade work and school work are so adjusted as to give him a progressive education in the fundamentals of his craft, the manual and technical training going on simultaneously.

Scholarships of the Miners' Welfare Fund

THE report of the Miners' Welfare Fund of Great Britain for 1927 contains an account of the granting of the university scholarships, offered for the first time early in that year. Two kinds of scholarships were offered, the first for working miners and the second for children of miners. The principal requirement was that candidates must either be ready to enter university degree courses, or be so far advanced in this preparation that they could qualify for entrance before the beginning of the next university year. The scheme was well advertised, and the response was immediate and large. Altogether 1,209 applications were received from miners and 1,050 from miners' children. The degree of preparation shown by working miners was unexpected.

> Over a hundred * * * proved to be already qualified to enter on university degree courses, nearly another hundred were taking a qualifying examination

during the year with reasonable prospects of success, and over a hundred more had acquired such a degree of education that, so far as the selection committee were able to judge from the evidence before them, they would have had little difficulty in passing one of the qualifying tests for persons of mature years which are now held by practically all the British universities. There were thus over 300 working miner candidates whose applications demanded serious consideration.

Among the second group, the children of miners, over 500 were already qualified to enter on degree courses.

Only 11 scholarships were available, and after much careful selection and elimination, 8 of these were awarded to miners and 3 to children of miners. The successful candidates in the first group ranged from 22 to 40 years of age, only three being under 25. Six of them wished the scholarship in order to secure a degree in economics, one wished to study commerce, "on the ground that the mining industry needs men qualified both in commercial matters and in mining engineering," and one, desiring to become a Methodist minister, was awarded a scholarship to enable him to complete his studies in Hebrew. Of the three successful contestants in the second group, two were lads of 17 who were given scholarships to obtain honors degrees, one in English and one in the classics. The third was a girl of 18, whose scholarship would enable her to complete the medical course which she was following in the belief that "there is a useful sphere in the mining districts of South Wales for women medical practitioners."

Comment is made in the report on the extent to which the miner candidates desired courses which would bear upon the mining industry. In view of the widespread unemployment in coal mining at present in England, it might have been anticipated that many would seek an opportunity to fit themselves for careers other than mining, but the proportion was smaller than was expected.

The fact that no less than 498 wished to qualify as mining engineers, while the majority of the 178 who wished for degrees in other branches of engineering and the 146 who merely specified the degree of B. Sc. as their objective, were also proposing to remain in the industry, indicates that there are still a very large number of workers who have faith in the future of coal mining in this country.

Among the candidates of the second group the situation was very different, the largest group, 57 per cent, wishing to enter some branch of the teaching profession, and the remainder being scattered among a variety of occupations, or not specifying what career they wished to follow.

The competition served to show clearly the keenness for education among the miners and their children, and the zeal with which they overcome the obstacles in the way of securing instruction.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in March, 1928

DATA regarding industrial disputes in the United States for March, 1928, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

The bureau has no machinery for the prompt and full reporting of strikes and lockouts. Many of the important industrial disputes come to the attention of the conciliation service of the Department of Labor, and through its courtesy this bureau has access to all such reports. Otherwise, the bureau must depend largely upon newspapers, trade journals, and labor periodicals for preliminary reports of disputes. These preliminary reports are followed up by correspondence with the various parties concerned and when necessary by personal visits of representatives of the conciliation service or of the Bureau of Labor Statistics.

For these reasons, the data here presented do not pretend to be absolutely complete or fully accurate. It is believed, however, that practically all the more significant strikes or lockouts are recorded and that the information submitted is sufficiently accurate to give a fair presentation of the situation in the United States.

Table 1 is a summary table showing for each of the months—June, 1927, to March, 1928, inclusive—the number of disputes which began in these months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question. It is to be noted that the figures given include only those disputes which have been verified by the bureau.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN, AND IN EFFECT AT END OF, EACH MONTH, JUNE, 1927, TO MARCH, 1928

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
June, 1927	75	82	18,585	196,047	4,859,468
July, 1927	62	62	33,763	199,087	5,307,089
August, 1927	53	50	8,066	198,367	4,998,506
September, 1927	46	49	12,514	197,588	4,960,249
October, 1927	48	56	12,695	81,766	2,722,110
November, 1927	26	50	4,089	82,207	2,031,749
December, 1927	26	52	4,243	81,191	2,128,721
January, 1928	43	62	18,263	81,676	2,135,092
February, 1928 [1]	38	64	33,385	104,637	2,145,253
March, 1928 [1]	25	64	10,948	81,209	2,421,794

[1] Preliminary figures subject to revision.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in January, February, and March, 1928, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN JANUARY, FEBRUARY, AND MARCH, 1928

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	January	February	March	January	February	March
Bakers	1	1		62	8	
Building trades	7	5	6	190	253	3,525
Chauffeurs and teamsters		1			15	
Clothing workers	10	14	7	13,550	27,273	534
Furniture workers	1			19		
Glass workers			1			440
Hotel and restaurant employees			1			16
Laundry workers			1			200
Leather workers	1			71		
Lumber and timber workers			1			50
Metal trades	8		1	266		15
Mine workers	2	2	5	1,470	2,425	6,024
Motion-picture and theatrical workers		1			65	
Paper and paper goods workers		1			1,200	
Railroad workers		1			400	
Slaughtering and meat packing	1	2		700	31	
Stationary engineers and firemen	1			28		
Street-railway employees	1			155		
Textile workers	9	7	2	1,737	1,615	144
Miscellaneous	1	3		15	100	
Total	43	38	25	18,263	33,385	10,948

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in March, classified by number of workers and by industries:

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN MARCH, 1928, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in March, 1928, involving—					
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	5,000 workers and over
Building trades		3	2		1	
Clothing workers	2	3	2			
Glass			1			
Hotel and restaurant employees	1					
Laundry workers			1			
Lumber and timber workers		1				
Metal trades	1					
Mine workers			1	2	2	
Textile workers	1		1			
Total	5	7	8	2	3	

In Table 4 are shown the number of industrial disputes ending in March, by industries and classified duration:

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN MARCH, 1928, BY INDUSTRIES AND CLASSIFIED DURATION

Industry	Classified duration of strikes ending in March, 1928						
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months	5 months and less than 6 months	7 months and less than 8 months
Building trades	2	1	1	1		1	
Clothing workers	2	1	2		1		
Furniture workers				1			
Glass workers	1						
Laundry workers		1					
Metal trades			1				
Mine workers	3						
Motion picture and theatrical workers							1
Paper and paper goods workers	1						
Textile workers	1	2					
Total	10	5	4	2	1	1	1

Principal Strikes and Lockouts Beginning in March, 1928

STRUCTURAL-IRON workers, New York City.—About 2,500 employees of the Structural Steel Board of Trade were locked out from March 26 to March 28 because of a dispute precipitated by the refusal of some 200 bricklayers to work on certain buildings where the steel had been put up by nonunion men.

The following notice was published as having been given to all nonunion steel workers in their pay envelopes:

> The members of the bricklayers' union have struck on several jobs in this city, giving as their reason that they refuse to work on buildings where the steel has been put up by nonunion men working for the steel erectors on the open-shop basis.
>
> If this issue is not faced now and the condition continues, it will mean that it will be impossible for you to secure work at your trade. Therefore, in order to protect you, this company finds it necessary to cease all steel erection in Greater New York on March 26, 1928, until such time as the members of the bricklayers' union proceed to work.

The differences between the bricklayers and the Structural Steel Board of Trade were reported as settled on March 28, as explained in the following telegram to the locked-out steel workers:

> At 5.30 p. m., March 28, the executive committee of the mason builders' association, which met the executive committee of the bricklayers' union to-day, assured our executive committee that the bricklayers' executive committee has agreed with them to return their men within 24 hours to all buildings on which they have struck. In view of this assurance by the mason builders' association that this will be done, you should proceed with your work at once.

Coal miners, Pennsylvania.—The Butler colliery, Pittston, was affected by a strike of its employees from March 17 to March 26, because the company employed six new men not affiliated with the colliery local. The men demanded that old hands who had been laid off should be given preference over the new men. The number of workers directly involved was reported as 1,310. They returned on terms to be fixed by the company.

Principal Strikes and Lockouts Continuing into March, 1928

PAPER-BOX makers, New York.—The strike which began on February 29 in New York City appears to have been about one-third successful and two-thirds failure. After about a third of the manufacturers had acceded to the demands of the workers, the drivers, it is alleged, took matters into their own hands and settled on March

12 for a wage of $30, all legal holidays except four being surrendered, as well as other demands, which "broke the morale of the strike."

The following statement was issued, it is said, on March 16 by the paper-box makers' union:

A section of the striking paper-box drivers has returned to work outside the authority or knowledge of the paper box makers' union. This union has carried on for more than two weeks a strike in which 1,500 men and women fought without a single break for recognition of this union and a moderate basic wage and work week.

Unknown to this office a group of workers under the leadership of Joe Paresi, the representative of the drivers, Paul Deutsch, Joseph Peluso, James Reynoldo, and Frank Mardrachi, under the advice, it is believed, of other parties whose purposes are yet to be disclosed, sold out their union brothers by going back to the bosses. This group, it has been disclosed, has been working together with the bosses from the beginning.

This sell-out was accomplished in spite of the fact that more than one-third of the affected shops had already signed with the paper-box makers' union and there was every reason to suppose that a complete settlement would have been accomplished within a day or two.

Bituminous coal strike.—The suspension of April 1, 1927, continues in part, as outlined in former issues of the Review, to which was added on April 1, 1928, a second suspension in Illinois, Indiana, and other States where temporary settlements to March 31, 1928, had been made early in October, 1927. The miners and operators in these States were unable to reach agreements to become effective April 1, 1928, following the expiration of the temporary settlements referred to. This new suspension involves, it is said, approximately 100,000 miners, most of whom were employed in Illinois and Indiana. The other States reported as involved being those in the southwestern district, and to some extent, perhaps Iowa. In this State, however, most of the mines are operating, it is reported, under the old scale without the signing of a new agreement.

The Illinois Coal Operators' Association, representing the largest State group of union bituminous mines, has released its members to negotiate individual contracts with the union or to make whatever terms they desired. A similar plan has been adopted in Indiana. It was reported from union sources that by the time the suspension began 53 operators in Illinois had made separate agreements with the union miners in District 12 to continue operations.

Conciliation Work of the Department of Labor in March, 1928

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 30 labor disputes during March, 1928. These disputes affected a known total of 11,103 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On April 1, 1928, there were 47 strikes before the department for settlement, and, in addition, 17 controversies which had not reached the strike stage. The total number of cases pending was 64.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, MARCH, 1928

Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1928	1928		
Miners, Alden, Pa.	Strike	Miners	Wage rate for new vein	Adjusted. Returned; officials to fix rates.	Mar. 1	Mar. 6	775	5
Yellow Cab Co., Black & White Cab Co., Portland, Oreg.	do	Drivers and starters	Asked guaranty of $90 per month; 10 per cent of fares above that.	Pending	do		40	
Laundries, New York City	do	Laundry workers	Union recognition; wages	Adjusted. Returned without change	do	Mar. 10	200	100
Wilton Carpet Co., Kensington, Philadelphia, Pa.	do	Carpet workers	Alleged discharges for union affiliation.	Pending. Will fight for right to organize.	Feb. 21		142	
Liberty Pie Co., Washington, D. C.	do	Bakers	Discharge of baker	Adjusted. Agreement concluded; baker reinstated.	Mar. 5	Mar. 10	7	10
Loray Mill, Gastonia, N. C.	do	Weavers	Wage reduction	Unclassified. Places filled before arrival of commissioner.	do	Mar. 8	20	
Standard Plate Glass Co., Butler, Pa.	do	Clay, stone, and plate-glass workers.	Discharge of employee	Unclassified. Man reinstated before arrival of commissioner.	Mar. 8	Mar. 9	500	
Franklin Shoe Co., Brooklyn, N. Y.	do	Shoe workers	Union recognition and agreement.	Unclassified. Returned; agreement signed before arrival of commissioner.	Feb. 28	Mar. 3	24	
Typographical and newspaper men, Butte, Mont.	Controversy	Newspaper men	Working conditions	Pending	Mar. 10		(1)	
Manhattan Coffee & Sugar Co., Long Island, N. Y.	Strike	Drivers and helpers	Recognition; wage scale	Unclassified. Company refused contractual relations and workers returned without change.	Feb. 27	Mar. 9	21	
Paper-box workers, New York City	do	Paper-box makers	Union recognition	Unclassified. Recognition refused	Feb. 28	Mar. 12	300	
Wearwell Pants Co., Worcester, Mass.	Threatened strike.	Clothing makers	Asked signed agreement	Adjusted. Agreement concluded	Mar. 10	Mar. 16	26	
Knopf Manufacturing Co., Boston, Mass.	Strike	do	Alleged nonunion contract labor.	Adjusted. Satisfactory agreement concluded.	Mar. 1	Mar. 11	100	
Reynoldsville Silk Co., Reynoldsville, Pa.	Strike	Weavers (silk textiles).	New machines; elimination of 30 per cent bonus on Georgette.	Adjusted. Increase of 2 cents per yard on Georgettes.	do	Apr. 9	70	58
Checker Dollar Cab Co., Brown & White Cab Co., and Red Top Taxicab Co., Portland, Oreg.	Controversy	Taxicab operators	Wages and working conditions	Pending	Mar. 3		70	
Massachusetts Dress Manufacturing Association, Boston, Mass.	do	Dressmakers	Renewal of agreement and posting of cash security.	Adjusted. Agreement renewed; cash security waived.	Feb. 15	Mar. 7	1,000	
West End Coal Co., Mocanaqua, Pa	Strike	Miners	Car topping	Pending. Company refused conference with employees.	Mar. 15		822	33
Thatcher Raincoat Co., Boston, Mass.	Lockout	Raincoat makers	Interpretation of agreement	do	Mar. 10		(1)	
Kramer & Schnier, Boston, Mass.	Strike	Neckwear workers	(1)	do	Mar. 13		15	
Solway Dyeing & Bleaching Co.,	Controversy	Weavers	Number of looms to be operated by each weaver.	Adjusted. Accepted 8-loom system on one class of goods only.	Mar. 21	Mar. 24	140	

Solway Dyeing & Bleaching Co., Pawtucket, R. I.	Controversy	Weavers	Number of looms to be operated by each weaver.	Adjusted. Accepted 8-loom system on one class of goods only.	Mar. 21	Mar. 24	140	------
Southwestern Telephone Co., Charleston, Ill.	----do----	Telephone workers	Organization; threatened discharges for union activities.	Adjusted. Workers abandoned union activities.	Mar. 1	Mar. 29	17	2
Neptune Garment Co., Cambridge, Mass.	Strike	Raincoat workers	Reduction in piecework rates	Adjusted. Piecework rates to arbitration.	Mar. 12	Mar. 22	15	------
Oak Laundry, New York City	----do----	Laundry workers	Alleged discrimination	Adjusted. Majority of workers reinstated; others may return later.	Feb. 20 1927	Mar. 17	50	------
Llanahurst Manor Apartments, Indianapolis, Ind.	----do----	Building crafts	Nonunion conditions	Adjusted. Union crafts finished building.	Oct. 15 1928	Mar. 15	25	25
Butler Colliery, Pittston, Pa	----do----	Miners	Part of miners not affiliated with local unions.	Adjusted. Returned; officials to arrange terms.	Mar. 17	Mar. 26	1,380	20
University buildings, Eugene, Oreg	----do----	Carpenters	Asked union scale—$8 per day	Unclassified. Agreed to pay $8 per day beginning May 15; commissioner not engaged.	Mar. 21	Mar. 27	12	------
Bricklayers and structural-iron workers, New York City.	----do----	Building crafts	Protest against organization conditions in both crafts.	Adjusted. Returned to work; satisfactory settlement.	Mar. 14	Apr. 2	2,500	300
Structural-iron workers, Cedar Rapids, Iowa.	Threatened strike.	Iron workers	Union difficulty involving "local adjustment plan."	Adjusted. Remain at work pending arbitration.	Mar. 23	Mar. 31	42	2,000
Allegheny Foundry Co., Glassmere, Pa.	Lockout	Molders	Nonunion labor	Adjusted. All may return; new employees to join union.	Mar. 16	Apr. 2	27	60
Gamble Construction Co., St. Louis, Mo.	Threatened strike.	Carpenters	Jurisdiction of jack work on portable wooden frames.	Adjusted. Carpenters withdraw demands for jack work.	Mar. 29	Mar. 31	122	28
Total							8,462	2,641

[1] Not reported.

Industrial Disputes in the Philippines, 1922 to 1926

STATISTICS on strikes and other industrial disputes in the Philippines from 1922 to 1926 are summarized as follows in the annual report of the Governor General of the islands for 1926:

INDUSTRIAL DISPUTES IN THE PHILIPPINES, 1922 TO 1926

Year	Strikes and other industrial disputes		Causes of conflict		Adjustment in favor of—	
	Number	Workers involved	Wages	Other than wages	Workers	Employers
1922	24	14,956	19	5	7	13
1923	26	8,331	18	8	14	12
1924	20	6,784	13	7	12	8
1925	23	9,936	12	11	19	4
1926	27	7,279	18	9	16	11
Total	120	47,286	80	40	68	48

WAGES AND HOURS OF LABOR

Wages and Hours in Cotton Gins, 1927

WHILE primarily cotton gins are machines used to separate the cotton seed from the lint, the modern cotton gin is an establishment in which there are three separate processes—the cleaning of the cotton as it comes from the field, the separation of the cotton fiber from the seed, and the pressing and baling of the fiber. The ginning machines and the baling and cleaning machines collectively are known as "cotton gins."

The cotton-ginning industry is seasonal, being carried on only during the period of the year when cotton is picked. The outside spread of operation for a gin may be as much as five months, starting in the late summer. While the period of operation usually occurs about the same time of year, the dates may vary from year to year because of weather conditions, causing early or late maturity of the cotton plant. The season may also be lengthened or shortened from the same cause.

At the beginning of the cotton-picking season the gins operate only part time, either part of each day or on certain days of the week according to the supply of cotton being received. As the supply of cotton increases the time of operating the gins lengthens until the high point of supply is reached, when the gins operate at full capacity and for long hours every week day. Gins do not operate on Sundays, except occasionally during the busiest part of the season or when cleaning up and repairs may be necessary on that day. As cotton is ginned on the day it is brought in, the gin may, if the cotton is received in great quantity, operate late into the night, or may, also, during the busy season operate a night shift. After the busy season is over the operation of the gin gradually declines with the cotton picking, with shorter hours and fewer days' work until the season closes.

During the closed season the men find work on farms, on the roads, in fertilizer plants, or on odd jobs around town. Many of the gins are operated in connection with other industries, such as cottonseed-oil mills, cotton mills, coal yards, plantations, etc., and when such is the case the gin employees may be shifted to other work when there is no cotton to gin. There are also many gins operated independently of other industries.

The ginner, who is usually hired and paid for the full ginning season whether he works or is idle, is the nucleus of the crew. When gins are on short time, the men who are not needed on some days are laid off without pay. While they may obtain some work elsewhere on these days, they are usually idle. Quite generally, however, the men are paid for a full day when on duty whether or not the gin is operating. Odd jobs of ginning may be handled by two men or in some cases, by the ginner alone.

Seed cotton as it is taken from the field to the gin produces by weight approximately one-third lint and two-thirds seed. In some localities the proportion of lint is higher, running from 35 to 40 per cent. The cotton producer hauls his cotton from the field to the gin in loads of sufficient weight to make a bale of cotton to the load. When the load of seed cotton arrives at the gin, a tube about 10 inches in diameter is lowered into the wagon or truck and the cotton is drawn through it by air suction into the ginhouse to the cleaning machine. A man called a "feeder" or "suction feeder" attends the suction tube, moving it from place to place in the load until all the cotton has passed through. The wagon or truck is weighed, both before and after being unloaded, by a weigher, who also weighs and marks the bale of cotton after it comes from the press. After the cotton has passed through the cleaner it passes, usually by air pressure, through pipes to the gin stand.

The gin stand is a machine consisting principally of a series of circular saws, usually from 70 to 80 in number, mounted on a shaft, a little less than an inch apart. When in operation the shaft revolves rapidly, the saws passing through a series of slots placed close together so that the revolving saw teeth will catch the lint and draw it through the slots but preventing the seed from passing through. After the lint is drawn through the slots it is brushed from the saw teeth by brusnes which revolve much faster than the saws. The seed drops down into a conveyor and is carried from the gin stand, while the lint is blown through pipes to the gin press.

The ginner has charge of the gin stands, which vary in number according to the size of the establishment, and the baler, or pressman, is in charge of the press or baling machine. Other employees in the larger gins are foremen, oilers, engineers, firemen, repairers, truck drivers, watchmen, and various helpers.

A study of wages and hours of labor in the cotton-ginning industry was made by the Bureau of Labor Statistics of the United States Department of Labor during the fall of 1927. Agents of the bureau were sent into 10 cotton States—Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. Schedules for 76 establishments were obtained for a one-week period in either August, September, October, or November. Data were obtained for 459 employees, of which 236 were white, 207 were colored, and 10 were Mexicans; for 6 the race was not reported. No bonuses were paid and no extra rate of pay for overtime was given except in one establishment in which the ginner was given a 20 per cent and other employees about a 37 per cent higher rate for Sunday work or any time over 12 hours per day. The nominal or usual full time of 35 establishments was 12 hours per day and 72 hours per week; of 33 establishments 10 hours per day and 60 hours per week. The other eight gins had various nominal full-time hours. As indicated above regular hours are more nominal than real. In most of the gins the workers ate their lunch during slack periods but while the machinery was running, no deduction being made from their time for this purpose. Others were allowed an hour for lunch but when the gin was busy the machinery did not stop. Very little absenteeism was reported, as the men were ready to work when the gin operated, and very little difficulty was found in obtaining all the help needed.

The results of the survey are shown in the two tables which follow: Four principal occupations, feeders, ginners, balers, and weighers, were selected and the remaining occupations were grouped under the heading "Other employees."

Table 1 shows the race, number of establishments, number of employees, average number of days on which employees worked in one week, average full-time hours and actual hours worked in one week, average earnings per hour, and average full-time and actual earnings in one week, for each State and for all States for each of the selected occupation groups.

In Table 2 the same facts, for all occupations combined, are shown for each State separately and for all States. The figures for all States, all occupations, and all races as shown are as follows: In 76 establishments, 459 employees worked an average of 5.8 days per week, their average full-time hours per week being 66.2 but their average actual hours worked per week being 64.5, and earned 29.3 cents per hour and $18.94 per week, their full-time earnings per week being $19.40.

It will be noted that figures for all occupations are not reported for all establishments. The explanation is that while the operations in all the plants are the same, most of the plants are small and require few employees and an employee reported as working at one occupation may also do the work in two or more occupations, thus eliminating employees in some occupations.

TABLE 1.—HOURS AND EARNINGS IN COTTON GINS, 1927, BY OCCUPATION, STATE, AND RACE

Occupation and State	Race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
					Nominal full-time per week	Actually worked in one week	Per hour	Nominal full-time per week	Actual in one week
Feeders									
Alabama	Colored	3	4	5.8	72.0	67.5	$0.199	$14.33	$13.40
Arkansas	White	4	5	5.6	64.8	60.8	.230	14.90	14.00
	Colored	3	4	3.3	66.0	34.2	.186	12.28	6.35
Total		7	9	4.6	65.3	49.0	.216	14.10	10.60
Georgia	White	1	1	6.0	72.0	72.0	.146	10.50	10.50
	Colored	1	1	6.0	66.0	66.0	.182	12.00	12.00
Total		2	2	6.0	69.0	69.0	.163	11.25	11.25
Mississippi	Colored	6	11	5.6	65.5	58.5	.224	14.67	13.08
Oklahoma	White	11	12	5.6	60.0	56.5	.328	19.68	18.52
	Colored	1	1	6.0	60.0	60.0	.300	18.00	18.00
Total		11	13	5.6	60.0	56.8	.325	19.50	18.48
South Carolina	Colored	2	4	4.5	72.0	54.0	.167	12.02	9.00
Tennessee	Colored	3	7	4.9	65.1	53.8	.221	14.39	11.89

TABLE 1.—HOURS AND EARNINGS IN COTTON GINS, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Occupation and State	Race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
					Nominal full-time per week	Actually worked in one week	Per hour	Nominal full-time per week	Actual in one week
Feeders—Continued									
Texas	White	12	14	6.1	66.0	66.9	$0.294	$19.40	$19.69
	Colored	1	1	6.0	60.0	60.0	.300	18.00	18.00
	Mexican	2	4	6.0	72.0	72.0	.281	20.25	20.25
Total		15	19	6.1	66.9	67.6	.292	19.53	19.72
All States	White	28	32	5.8	63.8	62.2	.291	18.57	18.08
	Colored	21	37	5.2	66.2	56.3	.215	14.23	12.09
	Mexican	2	4	6.0	72.0	72.0	.281	20.25	20.25
Total		50	73	5.5	65.4	59.8	.254	16.61	15.16
Ginners									
Alabama	White	5	6	6.0	72.0	73.7	.322	23.18	23.75
	Colored	4	5	6.0	67.2	67.2	.250	16.80	16.80
Total		7	11	6.0	69.8	70.7	.291	20.31	20.59
Arkansas	White	5	7	6.0	63.4	63.4	.356	22.58	22.58
	Colored	3	3	6.0	68.0	68.0	.284	19.33	19.33
Total		8	10	6.0	64.8	64.8	.333	21.61	21.61
Georgia	White	5	7	6.1	72.0	73.7	.347	24.98	25.57
	Colored	2	2	6.0	69.0	69.0	.283	19.50	19.50
Total		7	9	6.1	71.3	72.7	.333	23.74	24.22
Louisiana	White	4	5	6.0	67.2	67.2	.415	27.90	27.90
	Colored	1	1	6.0	72.0	72.0	.208	15.00	15.00
Total		4	6	6.0	68.0	68.0	.379	25.75	25.75
Mississippi	White	2	2	6.0	60.0	60.0	.413	24.75	24.75
	Colored	7	10	5.9	66.0	63.2	.279	18.41	17.65
Total		9	12	5.9	65.0	62.7	.301	19.57	18.83
North Carolina	White	2	2	6.0	71.5	72.5	.493	35.25	35.75
	Colored	4	8	6.1	62.5	70.0	.278	17.38	19.45
Total		6	10	6.1	64.3	70.5	.322	20.70	22.71
Oklahoma	White	11	11	6.1	60.0	63.0	.453	27.18	28.55
South Carolina	White	3	5	4.6	71.4	53.2	.280	19.99	14.90
	Colored	2	3	6.0	72.0	72.0	.257	18.50	18.50
Total		5	8	5.1	71.6	60.3	.270	19.33	16.25
Tennessee	White	2	3	6.3	68.0	72.0	.322	21.90	23.17
	Colored	2	2	3.5	60.0	36.2	.348	20.88	12.58
	(1)	1	1	6.0	60.0	68.0	.500	30.00	34.00
Total		4	6	5.3	64.0	59.4	.361	23.10	21.44
Texas	White	15	16	6.1	67.5	69.6	.433	29.23	30.09
All States	White	54	64	6.0	66.9	67.0	.391	26.16	26.24
	Colored	25	34	5.9	66.1	65.6	.273	18.05	17.91
	(1)	1	1	6.0	60.0	68.0	.500	30.00	34.00
Total		76	99	5.9	66.5	66.6	.352	23.41	23.46

[1] Not reported.

TABLE 1.—HOURS AND EARNINGS IN COTTON GINS, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Occupation and State	Race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
					Nominal full-time per week	Actually worked in one week	Per hour	Nominal full-time per week	Actual in one week
Balers									
Alabama	White	2	3	4.3	72.0	56.0	$0.207	$14.90	$11.58
	Colored	6	16	5.9	68.3	67.5	.190	12.98	12.80
Total		7	19	5.7	68.8	65.7	.192	13.21	12.61
Arkansas	White	4	10	5.5	63.6	58.6	.240	15.26	14.05
	Colored	4	5	6.0	64.8	64.8	.255	16.50	16.50
Total		8	15	5.7	64.0	60.7	.245	15.68	14.87
Georgia	White	1	3	5.3	72.0	64.0	.208	14.98	13.33
	Colored	6	14	6.0	71.1	70.9	.173	12.30	12.28
Total		7	17	5.9	71.3	69.7	.179	12.76	12.47
Louisiana	Colored	4	10	5.8	67.2	65.0	.228	15.32	14.85
Mississippi	Colored	9	19	5.9	65.1	61.9	.233	15.17	14.41
North Carolina	Colored	6	24	5.8	66.3	64.4	.237	15.71	15.28
Oklahoma	White	11	15	5.9	60.0	63.5	.332	19.92	21.09
South Carolina	White	2	2	6.0	70.5	64.0	.230	16.22	14.75
	Colored	5	12	5.8	71.8	67.3	.185	13.28	12.45
Total		5	14	5.8	71.6	66.9	.191	13.68	12.78
Tennessee	Colored	3	8	5.1	63.0	54.8	.249	15.69	13.63
	(1)	1	1	6.0	60.0	78.0	.250	15.00	19.50
Total		4	9	5.2	62.7	57.4	.249	15.61	14.28
Texas	White	14	28	6.0	68.6	69.7	.312	21.40	21.75
	Mexican	1	1	6.0	60.0	60.0	.400	24.00	24.00
Total		15	29	6.0	68.3	69.3	.315	21.51	21.82
All States	White	34	61	5.8	66.0	65.2	.294	19.40	19.18
	Colored	43	108	5.8	67.4	65.0	.215	14.49	13.95
	Mexican	1	1	6.0	60.0	60.0	.400	24.00	24.00
	(1)	1	1	6.0	60.0	78.0	.250	15.00	19.50
Total		61	171	5.8	66.8	65.1	.244	16.30	15.91
Weighers									
Alabama	White	2	2	6.0	66.0	72.0	.386	25.48	27.81
Georgia	White	3	3	6.3	72.0	76.0	.316	22.75	23.98
Mississippi	White	2	2	6.0	60.0	60.0	.275	16.50	16.50
Oklahoma	White	6	6	6.0	60.0	63.3	.465	27.90	29.46
Texas	White	13	14	6.0	66.9	66.9	.404	27.02	27.02
Other States	White	2	2	6.0	72.0	72.0	.229	16.50	16.50
	Colored	1	1	5.0	60.0	55.3	.258	15.48	14.25
Total		3	3	5.7	68.0	66.4	.237	16.12	15.75
All States	White	28	29	6.0	65.8	67.3	.384	25.27	25.81
	Colored	1	1	5.0	60.0	55.3	.258	15.48	14.25
Total		29	30	6.0	65.6	66.9	.380	24.93	25.43

[1] Not reported.

TABLE 1.—HOURS AND EARNINGS IN COTTON GINS, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Occupation and State	Race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
					Nominal full-time per week	Actually worked in one week	Per hour	Nominal full-time per week	Actual in one week
Other employees									
Alabama	White	3	4	6.0	69.0	75.0	$0.332	$22.91	$24.88
	Colored	3	3	6.0	68.0	68.0	.235	16.00	16.00
Total		5	7	6.0	68.6	72.0	.293	20.10	21.07
Arkansas	White	5	5	6.0	63.6	63.6	.415	26.42	26.42
	Colored	3	3	6.0	68.0	68.0	.176	12.00	12.00
Total		7	8	6.0	65.3	65.3	.322	21.01	21.01
Georgia	White	2	2	6.0	72.0	72.0	.278	20.00	20.00
	Colored	5	5	6.2	70.8	73.2	.183	12.96	13.37
Total		7	7	6.1	71.1	72.9	.210	14.93	15.36
Mississippi	White	1	1	6.0	72.0	72.0	.481	34.65	34.65
	Colored	5	10	4.4	62.4	46.4	.221	13.79	10.25
Total		5	11	4.5	63.3	48.7	.256	16.20	12.47
North Carolina	White	2	3	6.3	69.0	72.0	.370	25.53	26.67
Oklahoma	White	10	17	5.7	60.6	60.4	.387	23.45	23.35
	Colored	2	2	6.0	60.0	61.0	.300	18.00	18.30
Total		10	19	5.7	60.5	60.4	.378	22.87	22.82
South Carolina	Colored	2	2	5.5	72.0	66.0	.150	10.80	9.88
Tennessee	White	3	4	6.0	66.0	70.3	.445	29.37	31.28
	Colored	2	2	6.0	66.0	41.0	.247	16.30	10.13
	(1)	1	4	6.0	60.0	77.5	.313	18.78	24.29
Total		4	10	6.0	63.6	67.3	.360	22.90	24.25
Texas	White	11	14	6.1	67.7	67.7	.373	25.29	25.29
	Mexican	4	5	6.0	69.6	69.6	.267	18.60	18.60
Total		12	19	6.1	68.2	68.2	.345	23.53	23.53
All States	White	37	50	5.9	65.2	66.1	.382	24.91	25.25
	Colored	22	27	5.4	66.0	58.3	.210	13.86	12.22
	Mexican	4	5	6.0	69.6	69.6	.267	18.60	18.60
	(1)	1	4	6.0	60.0	77.5	.313	18.78	24.29
Total		54	86	5.8	65.5	64.4	.322	21.09	20.73

[1] Not reported.

TABLE 2.—HOURS AND EARNINGS IN COTTON GINS, ALL OCCUPATIONS COMBINED, 1927, BY STATE AND RACE

State and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Nominal full-time per week	Actually worked in one week	Per hour	Nominal full-time per week	Actual in one week
Alabama:								
White	7	15	5.7	70.4	70.3	$0.315	$22.18	$22.16
Colored	6	28	5.9	68.6	67.5	.207	14.20	13.94
Total	7	43	5.8	69.2	68.5	.245	16.95	16.81
Arkansas:								
White	6	27	5.7	63.8	61.2	.303	19.33	18.54
Colored	4	15	5.3	66.4	57.9	.232	15.40	13.46
Total	8	42	5.6	64.7	60.0	.279	18.05	16.73
Georgia:								
White	6	16	6.0	72.0	72.0	.296	21.34	21.34
Colored	6	22	6.0	70.6	71.0	.185	13.06	13.17
Total	7	38	6.0	71.2	71.4	.232	16.52	16.61
Louisiana:								
White	4	6	6.0	68.0	68.0	.386	26.25	26.25
Colored	4	11	5.8	67.6	65.6	.226	15.28	14.86
Total	4	17	5.9	67.8	66.5	.284	19.26	18.88
Mississippi:								
White	5	5	6.0	62.4	62.4	.375	23.43	23.43
Colored	9	50	5.6	64.8	58.3	.239	15.49	13.93
Total	9	55	5.6	64.6	58.7	.252	16.28	14.80
North Carolina:								
White	3	5	6.2	70.0	72.2	.420	29.40	30.30
Colored	6	36	5.9	64.9	65.6	.246	15.97	16.10
Total	6	41	6.0	65.5	66.4	.269	17.62	17.83
Oklahoma:								
White	11	61	5.8	60.2	61.1	.383	23.06	23.38
Colored	2	3	6.0	60.0	60.7	.300	18.00	18.20
Total	11	64	5.8	60.2	61.1	.379	22.82	23.14
South Carolina:								
White	3	8	5.1	71.3	58.3	.255	18.18	14.88
Colored	5	21	5.5	71.9	65.3	.190	13.66	12.41
Total	5	29	5.4	71.7	63.4	.207	14.84	13.09
Tennessee:								
White	3	7	6.1	66.9	71.0	.391	26.16	27.80
Colored	3	20	5.0	63.6	51.2	.246	15.65	12.60
Not reported	1	6	6.0	60.0	76.0	.330	19.80	25.11
Total	4	33	5.4	63.6	59.9	.302	19.21	18.19
Texas:								
White	15	86	6.0	67.5	68.4	.357	24.10	24.40
Colored	1	1	6.0	60.0	60.0	.300	18.00	18.00
Mexican	4	10	6.0	69.6	69.6	.284	19.80	19.80
Total	15	97	6.0	67.7	68.5	.348	23.56	23.86
All States:								
White	63	236	5.9	65.7	65.7	.351	23.05	23.05
Colored	46	207	5.7	66.7	62.6	.224	14.94	14.04
Mexican	4	10	6.0	69.6	69.6	.284	19.80	19.80
Not reported	1	6	6.0	60.0	76.0	.330	19.80	25.11
Total	76	459	5.8	66.2	64.5	.293	19.40	18.94

Wages in the Citrus-Fruit Packing Industry

THE following data regarding wages in the citrus-fruit packing industry of Florida were obtained by a field representative of the Department of Labor:

North central district.—Pickers in the grove (per box): Oranges, 10 to 20 cents, according to size; grapefruit, 5 to 10 cents; tangerines, 10 to 20 cents (tangerine boxes are one-half the size of orange boxes). Packers (per box): Oranges, 7 cents; grapefruit, 5 cents; tangerines, 6 cents (half box). Average wage: Oranges, $20 to $25 per week; grapefruit, $30; tangerines, $20 to $25. Most of the packing is done by white female labor. Box makers (contract): Nailing, 70 cents per 100 boxes; making, $1.15 per 100 boxes. Average wage, $35 to $40 per week. Truckers and loaders (day labor), 30 to 35 cents per hour.

Southwest district.—Pickers (per box): Oranges, 8 to 15 cents; grapefruit, 5 to 10 cents; tangerines, 8 to 15 cents (half box). Average earnings (at rate of 75 to 100 boxes per day when fruit is heavy), $22 to $40 per week. Packers (per box): Oranges, 7 cents; grapefruit 4 cents; tangerines, 14 cents. Average wage, $3 per day. Box makers (contract): Average wage, $3.25 per day. Truckers and loaders, $2.50 per day.

Indian River district.—Pickers (per box): Oranges, 8 cents; grapefruit, 4 cents; tangerines, 15 cents; average earnings, $3.50 per day. Packers, $3 per day straight wage, for average of 80 boxes of grapefruit, 40 boxes of oranges, 40 half boxes of tangerines. Truckers and loaders (day labor), $2.50 per day; common labor in the groves, $2 per day. Rate for trucking from groves to packing houses in all instances ranges from 5 to 20 cents per box, according to distance from grove to packing house.

Wage Rates of Farm Labor, 1910 to 1928[1]

THE United States Department of Agriculture compiles quarterly the current wage rates of hired farm labor. Data are compiled separately for workers employed by the month and by the day, and separation is also made between wage rates which include board and those which do not include board. Wage rates by the day without board are, of course, the more nearly comparable with the wage rates of industrial workers.

Table 1 shows, for the United States as a whole, average farm wage rates and index numbers thereof from 1910 to January, 1928. From 1923 to January, 1928, details are also given for the months of January, April, July, and October. Table 2 shows the average wages, by States, for October, 1926, and October, 1927.

[1] United States. Department of Agriculture. Crops and Markets. Washington, November, 1927, and February, 1928.

TABLE 1.—AVERAGE FARM WAGE RATES AND INDEX NUMBERS, 1910 TO 1928

Year	Average yearly farm wage [1]				Index numbers of farm wages (1910–1914=100)
	Per month		Per day		
	With board	Without board	With board	Without board	
1910	$19.58	$28.04	$1.07	$1.40	97
1911	19.85	28.33	1.07	1.40	97
1912	20.46	29.14	1.12	1.44	101
1913	21.27	30.21	1.15	1.48	104
1914	20.90	29.72	1.11	1.44	101
1915	21.08	29.97	1.12	1.45	102
1916	23.04	32.58	1.24	1.60	112
1917	28.64	40.19	1.56	2.00	140
1918	35.12	49.13	2.05	2.61	176
1919	40.14	56.77	2.44	3.10	206
1920	47.24	65.05	2.84	3.56	239
1921	30.25	43.58	1.66	2.17	150
1922	29.31	42.09	1.64	2.14	146
1923	33.09	46.74	1.91	2.45	166
1924	33.34	47.22	1.88	2.44	166
1925	33.88	47.80	1.89	2.46	168
1926	34.86	48.86	1.91	2.49	171
1927	34.58	48.63	1.90	2.46	170
1923—January	27.87	40.50	1.46	1.97	137
April	30.90	44.41	1.55	2.09	148
July	34.64	48.61	1.84	2.44	169
October	34.56	48.42	2.02	2.58	174
1924—January	31.55	45.53	1.79	2.38	159
April	33.57	47.38	1.77	2.34	163
July	34.34	48.02	1.87	2.43	168
October	34.38	48.46	1.93	2.51	171
1925—January	31.07	45.04	1.74	2.31	156
April	33.86	47.40	1.77	2.33	163
July	34.94	48.55	1.89	2.44	170
October	34.91	48.99	1.95	2.53	173
1926—January	31.82	46.26	1.76	2.33	159
April	34.38	48.40	1.78	2.35	166
July	36.10	49.89	1.91	2.48	174
October	36.00	50.10	1.97	2.55	176
1927—January	32.94	47.07	1.79	2.36	162
April	34.53	48.47	1.78	2.37	166
July	35.59	49.52	1.89	2.44	172
October	35.68	49.77	1.96	2.51	175
1928—January	32.50	46.75	1.76	2.34	161

[1] Yearly averages are from reports by crop reporters, giving average wages for the year in their localities, except for 1924–1927, when the wage rates per month are a straight average of quarterly rates, April, July, October of the current year and January of the following year; and the wage rates per day are a weighted average of quarterly rates.

TABLE 2.—AVERAGE WAGES PAID TO HIRED FARM LABOR, BY STATES, OCTOBER, 1926 AND 1927

State and division	Per month, with board		Per month, without board		Per day, with board		Per day, without board	
	1926	1927	1926	1927	1926	1927	1926	1927
Maine	$45.00	$45.00	$64.00	$66.00	$2.60	$2.75	$3.25	$3.30
New Hampshire	50.00	49.00	76.00	71.00	2.50	2.70	3.30	3.45
Vermont	36.00	47.00	65.00	69.00	2.60	2.55	3.20	3.35
Massachusetts	52.00	52.00	79.00	83.00	2.75	2.90	3.80	3.75
Rhode Island	51.00	52.00	78.00	82.00	2.80	2.70	3.60	3.70
Connecticut	54.00	54.00	80.00	82.00	2.85	2.90	3.80	3.85
New York	50.50	49.75	70.25	69.50	3.10	3.05	3.90	3.80
New Jersey	54.00	47.00	77.00	72.00	2.90	2.90	3.75	3.80
Pennsylvania	41.75	41.00	60.00	61.50	2.60	2.60	3.35	3.40
North Atlantic	47.75	47.01	68.67	69.03	2.82	2.83	3.62	3.62
Ohio	39.00	39.25	55.00	54.50	2.55	2.50	3.25	3.25
Indiana	37.00	37.00	50.00	50.00	2.25	2.25	2.85	2.90
Illinois	42.00	42.50	55.00	55.00	2.35	2.25	3.05	2.95
Michigan	43.50	42.50	61.50	59.25	2.75	2.70	3.50	3.35
Wisconsin	48.50	49.00	66.00	67.25	2.45	2.55	3.15	3.10
Minnesota	46.75	47.25	62.00	63.75	2.80	2.75	3.40	3.50
Iowa	46.25	46.75	56.75	55.00	2.50	2.55	3.10	3.15
Missouri	34.00	33.00	44.00	45.00	1.70	1.65	2.20	2.20
North Dakota	49.50	53.25	69.50	72.00	3.35	4.20	4.20	4.90
South Dakota	43.75	48.25	60.00	66.50	2.45	2.95	3.25	3.70
Nebraska	40.00	43.00	53.50	55.75	2.25	2.55	3.00	3.30
Kansas	37.00	37.75	51.00	52.25	2.20	2.40	2.90	3.10
North Central	41.91	42.47	56.12	56.67	2.41	2.47	3.08	3.14
Delaware	35.00	33.00	48.00	50.00	2.50	2.50	3.10	3.15
Maryland	35.75	36.75	51.00	52.25	2.25	2.20	2.95	2.90
Virginia	30.00	31.00	43.00	43.00	1.65	1.65	2.15	2.15
West Virginia	34.75	34.00	49.50	48.75	1.80	1.75	2.50	2.40
North Carolina	30.00	27.50	41.00	38.00	1.50	1.40	1.90	1.75
South Carolina	21.00	20.50	29.50	29.25	1.05	1.00	1.40	1.35
Georgia	21.50	20.25	29.50	28.75	1.10	1.05	1.45	1.40
Florida	28.00	24.25	42.50	36.75	1.50	1.20	2.00	1.70
South Atlantic	26.76	25.77	37.58	36.44	1.42	1.35	1.86	1.78
Kentucky	28.50	27.50	39.75	38.25	1.60	1.35	2.05	1.75
Tennessee	24.75	25.75	33.00	33.50	1.20	1.15	1.60	1.55
Alabama	22.50	22.00	31.50	27.00	1.25	1.20	1.60	1.45
Mississippi	23.75	23.50	33.70	32.00	1.25	1.20	1.65	1.60
Arkansas	30.00	25.50	37.50	36.00	1.25	1.30	1.70	1.70
Louisiana	24.00	23.50	36.00	33.00	1.35	1.25	1.80	1.60
Oklahoma	31.50	30.25	45.00	47.25	1.85	1.75	2.50	2.20
Texas	30.00	26.50	44.00	43.25	1.70	1.55	2.20	2.00
South Central	27.14	25.57	38.15	36.85	1.46	1.36	1.91	1.75
Montana	52.50	60.25	75.00	77.50	3.20	3.65	3.85	4.40
Idaho	56.00	58.25	77.00	79.50	2.85	3.05	3.65	3.75
Wyoming	49.00	51.75	70.00	73.25	2.50	2.65	3.40	3.55
Colorado	41.30	43.00	63.80	65.00	2.40	2.40	3.20	3.20
New Mexico	34.00	35.25	50.00	49.75	1.70	1.75	2.20	2.15
Arizona	45.00	50.50	65.00	69.00	1.75	2.05	2.50	2.75
Utah	54.50	59.75	75.00	80.75	2.40	2.70	3.10	3.30
Nevada	59.25	63.25	81.50	89.00	2.55	2.85	2.95	3.50
Washington	51.00	53.75	75.00	77.75	2.90	3.05	3.60	3.70
Oregon	51.00	53.25	76.00	72.00	2.50	2.70	3.25	3.45
California	63.00	65.00	90.00	90.00	2.55	2.65	3.65	3.60
Western	53.61	56.39	77.31	78.33	2.51	2.67	3.37	3.45
United States	36.00	35.68	50.10	49.77	1.97	1.96	2.55	2.51

Wages of Seamen, 1927

WAGE rates of seamen in the American merchant marine, with comparative rates for seamen of other countries, are contained in Merchant Marine Statistics, 1927, published by the Bureau of Navigation of the United States Department of Commerce. The following tables have been compiled from that publication, with certain corrections made by the Bureau of Navigation.

All wages shown in these tables, except American, are taken from consular reports. The American figures are averages taken from reports of the shipping commissioners. The wages on foreign vessels are stated in the United States equivalents of the foreign values, taken at the exchange rate on January 1 of the year named. When more than one rate has been reported for foreign vessels, due to length of service or other conditions, the highest is usually given in the table. The wages on American motor ships average about 10 per cent more than on steamships.

Table 1 shows the average monthly wage rates of four typical classes of seamen as of January 1, 1927, for the United States and for certain important foreign countries.

TABLE 1.—AVERAGE MONTHLY WAGES OF CERTAIN CLASSES OF SEAMEN ON AMERICAN AND FOREIGN STEAM AND MOTOR CARGO VESSELS OF 5,000 GROSS TONS AND OVER, JANUARY 1, 1927

Nationality of vessels	Able seamen	Carpenters	Chief engineers	Firemen	Nationality of vessels	Able seamen	Carpenters	Chief engineers	Firemen
American:					French	$21	$24	$109	$24
Private	$67	$77	$268	$62	German	24	29	102	27
United States Shipping Board	62	79	263	65	Italian	22	27	76	24
British	44	63	[1] 147	46	Norwegian	43	51	152	44
Danish	43	49	173	45	Spanish	30	31	183	31
Dutch	40	46	151	42	Swedish	40	46	148	40

[1] On motor vessels, $226.

Table 2 gives detailed data, similar to the above, for all classes of seamen on January 1 of 1926 and 1927.

TABLE 2.—AVERAGE MONTHLY WAGES OF SEAMEN ON AMERICAN AND FOREIGN STEAM AND MOTOR CARGO VESSELS OF 5,000 GROSS TONS AND OVER, JANUARY 1, 1926 AND 1927

Occupation	American				British		Danish		Dutch		French	
	Private		United States Shipping Board									
	1926	1927	1926	1927	1926	1927	1926	1927	1926	1927	1926	1927
Deck department:												
First mate	$174	$174	$184	$184	$111	[1] $112	$151	$144	$111	$111	$72	$79
Second mate	151	153	163	164	79	[2] 77	116	112	84	84	60	53
Third mate	135	137	149	149	58	58	66	64	54	54	48	----
Fourth mate	115	116	150	150	51	51	66	64	----	----	35	----
Boatswain	73	72	74	74	51	51	54	49	46	46	20	24
Carpenter	75	77	72	79	75	63	54	49	46	46	20	24
Seaman, able	60	59	62	62	44	44	48	43	40	40	17	21
Seaman, ordinary	45	44	47	47	28	29	23	21	20	20	15	19
Engineer department:												
Chief engineer	270	268	263	263	152	[3] 147	183	173	151	151	127	109
Second engineer	174	175	183	184	114	[4] 112	132	128	103	103	72	77
Third engineer	151	154	162	164	79	[5] 77	98	93	72	72	61	61
Fourth engineer	136	138	147	149	58	58	77	75	46	46	50	50
Junior engineer	----	----	----	----	51	51	64	49	----	----	----	----
Fireman	62	62	66	65	----	46	49	45	42	42	18	24
Greaser	69	68	72	72	----	49	49	45	46	46	20	23
Water tender	69	68	72	72	49	49	54	45	----	----	18	----
Coal passer or wiper	53	52	58	53	44	44	33	30	34	34	17	21
Steward department:												
Chief steward	124	125	122	122	75	71	89	80	----	----	----	28
Second steward	100	93	100	100	61	46	----	----	----	----	----	----
Cook	102	102	100	97	70	66	66	59	----	----	----	23
Second cook	80	81	81	81	46	43	32	29	----	----	----	16
Mess steward	49	47	47	48	40	40	----	----	----	----	----	19
Mess boy	41	41	42	42	----	----	----	11	----	----	----	8

[1] On the largest vessels, with superior certificate, after 3 years, $121.
[2] On the largest vessels, with superior certificate, after 3 years, $83.
[3] On motor vessels, $226.
[4] On motor vessels, $146.
[5] On motor vessels, $95.

TABLE 2.—AVERAGE MONTHLY WAGES OF SEAMEN ON AMERICAN AND FOREIGN STEAM AND MOTOR CARGO VESSELS OF 5,000 GROSS TONS AND OVER, JANUARY 1, 1926 AND 1927—Continued

Occupation	German		Italian		Norwegian		Spanish		Swedish	
	1926	1927	1926	1927	1926	1927	1926	1927	1926	1927
Deck department:										
First mate	$67	$69	$49	$55	------	$139	$99	$115	$100	$100
Second mate	53	56	41	46	------	114	71	76	74	74
Third mate	40	42	35	39	------	88	42	65	59	59
Fourth mate	31	33	------	37	------	63	------	------	------	------
Boatswain	27	29	25	28	$43	48	28	34	46	46
Carpenter	27	29	23	27	43	51	------	31	46	46
Seaman, able	22	24	20	22	38	43	21	30	40	40
Seaman, ordinary	12	12	------	------	20	23	17	26	33	33
Engineer department:										
Chief engineer	98	102	69	76	------	152	113	183	148	148
Second engineer	67	69	41	55	------	101	71	115	90	90
Third engineer	53	56	35	46	------	88	49	80	72	72
Fourth engineer	40	42	------	39	------	63	------	------	55	55
Junior engineer	26	28	------	------	------	------	------	------	------	------
Fireman	------	27	21	24	39	44	21	31	40	40
Greaser	26	28	------	24	------	------	------	31	43	43
Water tender	26	------	------	------	------	------	28	34	------	------
Coal passer or wiper	------	------	20	22	22	25	20	26	28	28
Steward department:										
Chief steward	24	------	25	28	------	114	28	38	73	73
Second steward	------	------	22	------	------	------	------	------	------	------
Cook	28	29	------	------	------	76	28	35	48	48
Second cook	------	------	------	24	------	------	------	------	32	32
Mess steward	12	12	25	21	------	------	11	20	------	------
Mess boy	6	6	------	12	------	13	7	15	------	------

Table 3 shows the variations in the wage rates of seamen according to destination of vessels.

TABLE 3.—AVERAGE MONTHLY WAGES PAID ON AMERICAN MERCHANT VESSELS OF 500 GROSS TONS AND OVER IN 1927, BY DESTINATION OF VESSELS

Occupation	Great Britain	Continental Europe	South America	West Indies, Mexico, and Central America	Atlantic and Gulf coasting trade	Asia and Australia	Pacific coasting trade	Africa	Atlantic and Pacific ports, and vice versa
Steam vessels:									
Able seaman	$63	$61	$63	$61	$63	$61	$62	$62	$60
Boatswain	75	73	74	75	76	74	74	74	73
Carpenter	78	78	77	76	78	79	76	79	77
First mate	183	181	178	174	173	184	160	183	176
Second mate	161	160	158	151	150	163	134	162	155
Fireman	66	64	63	64	65	63	63	64	64
Trimmer	58	58	54	55	57	55	58	56	55
First engineer	239	239	243	239	230	256	233	245	238
Second engineer	177	175	175	169	166	182	166	179	171
Sailing vessels:									
Able seaman	60	60	63	60	58	60	90	60	64
Boatswain	70	70	71	69	70	85	------	75	76
Carpenter	------	------	------	------	------	------	------	------	85
First mate	85	85	106	90	85	125	130	90	148
Second mate	------	------	75	78	72	85	110	------	113

Agricultural Wages in Canada, 1926 and 1927

WAGES of agricultural laborers in Canada for 1926 and 1927 are given in the following table, compiled from the February, 1928, issue of the Monthly Bulletin of Agricultural Statistics, published by the Dominion Bureau of Statistics:

AVERAGE WAGES OF FARM HELP IN CANADA, 1926 AND 1927

Province and year	Males, per month, summer season			Females, per month, summer season			Males, per year,			Females, per year		
	Wages	Board	Wages and board	Wages	Board	Wages and board	Wages	Board	Wages and board	Wages	Board	Wages and board
Canada:												
1926	$41	$23	$64	$23	$19	$42	$384	$255	$639	$242	$213	$455
1927	41	23	64	23	19	42	396	262	658	247	220	467
Prince Edward Island:												
1926	31	16	47	17	13	30	294	190	484	180	145	325
1927	30	16	46	18	13	31	285	187	472	184	150	334
Nova Scotia:												
1926	35	19	54	18	14	32	350	238	588	194	175	369
1927	36	19	55	17	13	30	350	212	562	189	151	340
New Brunswick:												
1926	39	18	57	17	14	31	354	175	529	176	143	319
1927	37	20	57	18	14	32	372	216	588	193	154	347
Quebec:												
1926	38	19	57	19	13	32	345	202	547	185	141	326
1927	39	19	58	19	14	33	347	190	537	183	146	329
Ontario:												
1926	37	21	58	22	17	39	349	234	583	232	187	419
1927	37	22	59	22	16	38	366	239	605	250	195	445
Manitoba:												
1926	38	22	60	22	18	40	367	247	614	233	205	438
1927	38	22	60	21	19	40	358	254	612	222	217	439
Saskatchewan:												
1926	43	24	67	24	21	45	406	272	678	261	237	498
1927	43	24	67	24	21	45	415	277	692	260	236	496
Alberta:												
1926	45	24	69	25	22	47	422	279	701	271	249	520
1927	45	25	70	27	22	49	446	290	736	294	250	544
British Columbia:												
1926	49	27	76	27	23	50	452	315	767	278	254	532
1927	51	27	78	28	23	51	498	306	804	300	256	556

The above table shows that for the Dominion as a whole the average wages per month for male farm helpers in the summer season of 1927 was $41 and for woman helpers $23, which are the same rates reported for the previous year. It will be noted, however, that the average annual rates for 1927 were somewhat higher for both men and women than they were in 1926 as were also the amounts for board. The same may be said of the average annual wage rates and board for agricultural labor in the Provinces of New Brunswick, Ontario, and Alberta.

The annual rates and board in the other Provinces, however, were less uniform; for example, in Prince Edward Island the wages and board for male helpers were lower in 1927 than in 1926 and for female helpers higher in the later year, while in Saskatchewan in 1927 the wages and board of the men were higher than in the previous year and the wages and board of the women were lower than in 1926.

Minimum Wage for Male Workers in British Columbia

INDUSTRIAL Canada, published by the Canadian Manufacturers' Association (Toronto), announces in its issue for February, 1928, that the board administering the male minimum wage act has set legal minimum wages for workers in the catering trade, to become effective March 15. The scale is as follows:

Where employees received their meals free from their employers, 32.5 cents an hour for a straight shift and 35 cents an hour on a split shift.

Where employees do not receive free meals, 40 cents an hour for a straight shift and 42.5 cents an hour for a split shift.

This is the second determination made by the board, the first having dealt with wages in the lumber industry, where the minimum for male workers was fixed at 40 cents an hour.

Two-Shift System for Women in England

THE Manchester Guardian, in its issue for March 20, 1928, gives a summary of a report recently made by the industrial fatigue board concerning the effects upon workers and upon output of the system of working two shifts between 6 a. m. and 10 p. m. The employment of women and young persons aged 16 and over in this manner was rendered possible by an act passed in 1920 to meet conditions which it was supposed would be temporary. The act has, however, been extended from time to time and was included in the "expiring bills continuance law," which was passed by Parliament in December, 1927. The main points brought out by the report are that the shorter hours worked under the shift system did not decrease output proportionately, that the health of the women and girls, as shown by the amount of sickness recorded, was practically the same whether they were employed under the shift system or as regular day workers, and that the shift system, at least in its introductory stages, appeared to increase labor turnover.

The use of the two-shift system for the employment of women and girls, the report points out, has not been extensive. Not more than 50 factories employing over 8 or 10 women and young persons under 18 used it regularly during 1925 and 1926, and these factories employed altogether not over 4,000 persons. How many women and girls altogether were affected by the shift system is not stated. It was found in use in factories producing a variety of manufactures ranging from artificial silk and hosiery to telephone and wire manufactures.

Day workers in these establishments had a regular 48-hour week, while workers on the morning shift had a week of from 43 to 45 hours, and those on the afternoon shift, who did not work at all on Saturday, had 37.5 hours. The reduction in hours was accompanied by an increase in hourly output, but this was not quite sufficient to make up for the shorter working time, so that the weekly output per worker was lowered by 4 per cent.

An analysis of the loss, both voluntary and involuntary, of working time within the factory showed that the actual time worked was nearly identical for shift workers and for day workers. "The latter had longer hours but lost more time; so that in the end the net working time per week and the weekly output of the shift workers were nearly equal to those of the day workers."

A comparison of the records in one factory seemed to show that absenteeism was more common among the shift workers than among the day workers, but that neither system had any advantage over the other in respect of sickness among the workers. At times, however, a greater amount of labor turnover was found under the shift system.

The effects of the shift system on labor turnover appear from the evidence of the report—though it relates only to one large artificial silk and hosiery factory—to be considerable. Out of about 1,600 workers, on the average 50 in every 100 left every year. The difference in turnover between the groups of departments always on shift or day work, respectively, was not large, but that in departments which had changed over from day to shift work or vice versa during the year was very large. Three-quarters of the workers from these changeable departments left during the year. This is attributed to the unsettling effects on habits of a change-over. The investigators declare "that the most potent factor in producing a preference to day or night shift work was habit," and that it seemed "if the shift system was kept going steadily for some length of time, without frequent changes from shift work to day work, the workers became accustomed to it and it ran smoothly."

Wages in Various Occupations in Haiti

A RECENT communication from the American consul, Winthrop R. Scott, at Cape Haitien, Haiti, dated January 25, 1928, shows the average monthly wages paid to various classes of workers in Haiti, as follows:

Bank tellers	$70–100
Bank clerks	50– 75
Messengers	8– 10
Clerks (stores)	15– 20
Mechanics	80–100
Typists	35
Accountants	100
Secretary (with knowledge of English and French)	150–200
Salesmen	100–150

Wages in Budapest, Hungary, 1914 and 1926

THE Yearbook of Statistics and Administration (*Statistisch-Administratives Jahrbuch*), published by the Communal Bureau of Statistics at Budapest, contains a table showing the weekly wages, by occupations, in the principal industries of the capital city of Hungary in the years 1914 and 1926. A table of specified occupations in these industries is given in the following table.

WEEKLY WAGES IN SPECIFIED OCCUPATIONS IN BUDAPEST, HUNGARY

[Converted into U. S. currency on the basis of gold crown = 20.26 cents]

Industry and occupation	1914 (gold crowns)	December, 1926	
		Gold crowns	U. S. currency
Iron and metal			
Steel molders	44.64	50.40	$10.21
Iron molders	46.56	45.56	9.23
Metal molders	42.72	44.94	9.10
Machine modelers	31.20	34.19	6.93
Cleaners, molds	23.04	23.83	4.83
Machinists, foremen	39.84	38.80	7.86
Machinists	30.24	29.76	6.03
Machine assemblers	35.04	36.52	7.40
Tool repairers	35.04	34.74	7.04
Iron erectors	36.48	37.61	7.62
Tinsmiths	34.08	32.11	6.51
Bronze workers	39.84	34.96	7.08
Pressmen	45.12	46.55	9.43
Polishers	40.80	39.77	8.06
Mechanics	36.00	34.21	6.93
Coppersmiths	39.84	41.94	8.50
Pipe fitters	35.52	33.10	6.71
Firemen	24.48	23.50	4.76
Planers	40.80	31.48	6.38
Benchmen	30.72	29.48	5.97
Coal passers	19.20	17.69	3.58
Oilers	20.16	19.12	3.87
Crane operators	20.64	20.56	4.17
Machine operators, female	16.32	15.96	3.23
Mechanics' helpers, female	16.32	16.84	3.41
Galvanizers, female	16.80	16.48	3.34
Stone and cement			
Stonecutters	37.80	43.03	8.72
Brick-factory workers	14.40	10.58	2.14
Woodwork			
Lumbermen	28.08	38.07	7.71
Coopers	38.00	38.07	7.71
Joiners:			
Furniture	30.72	29.79	6.04
Building	16.80	26.48	5.36
Turners	32.00	36.41	7.38
Textile industry			
Jute weavers:			
Male	24.00	19.29	3.91
Female	15.00	18.62	3.77
Cotton weaving workers:			
Male	24.00	19.29	3.91
Female	17.00	15.17	3.07
Rope makers	28.00	27.48	5.57
Knitting-machine operators:			
Male	25.00	21.85	4.43
Female	16.00	16.55	3.35
Lace makers:			
Male	30.00	35.75	7.24
Female	20.00	27.59	5.59
Textile industry—Con.			
Dyers:			
Male	42.00	51.72	$10.48
Female	30.00	27.59	5.59
Clothing industry			
Men's tailors:			
Beginners	20.00	19.15	3.88
Semiskilled	26.00	26.32	5.33
Skilled	32.00	33.50	6.79
Contract workers	40.00	38.28	7.76
Ready-made clothing:			
Pressers—			
Skilled	48.00	51.31	10.40
Independent	42.00	49.66	10.06
Pressers' helpers	30.00	37.24	7.54
Ladies' tailors:			
First 6 months	10.00	6.38	1.29
Second 6 months	12.00	8.16	1.65
After 1 year	14.00	9.58	1.94
After 2 years	16.00	11.69	2.37
Coat makers	32.00	31.55	6.39
Machine workers and pressers	56.00	52.06	10.55
Hat makers	24.00	48.93	9.91
Factory	16.00	22.47	4.55
Cap makers	32.00	44.04	8.92
Shoemakers	25.00	25.97	5.26
Food industry			
Millers	25.80	20.49	4.15
Bakers:			
Class 1	48.00	46.89	9.50
Class 2	37.00	42.99	8.71
Class 3	35.00	39.52	8.01
Pork butchers	40.50	39.31	7.96
Butchers	47.00	41.38	8.38
Chemical industry			
Male workers	18.00	20.69	4.19
Female workers	18.00	13.79	2.79
Building industry			
Stone and brick masons	27.36	28.47	5.77
Scaffold builders	18.24	24.50	4.96
Day laborers:			
Male	15.74	18.54	3.76
Female	10.80	12.74	2.58
Painters	38.40	27.59	5.59
Paper hangers	40.00	46.34	9.39
Cement workers	42.20	29.79	6.04
Plasterers	32.00	48.00	9.72

Labor and Wages in Central Italy

A RECENT report from American consuls Joseph Emerson Haven and Alan T. Hurd, of the Florence consular district, contains data on wages and hours of labor for a few occupations in that district, and also certain information regarding the employment of women and children, from which the following data were taken.

Wages and Hours of Labor

THE wage rates in the Florence district are stated to be somewhat lower than in other parts of Italy. Daily rates for certain occupations are shown in the accompanying table.

AVERAGE DAILY WAGE FOR SPECIFIED OCCUPATIONS IN FLORENCE DISTRICT

[In conversions into U. S. money the par value of the lira (5.26 cents) was used]

Occupation	Average daily wage	Occupation	Average daily wage
Unskilled laborers:		Bricklayers' helpers	$1.47
Male	$0.95–$1.05	Cement workers	1.58
Female	.53	Plasterers	1.68
Street car conductors [1]	.84–1.05	Carpenters	$1.42–1.58
Street car motormen [1]	.95–1.32	Carpenters' helpers	1.32
Silversmiths	1.16–2.10	Plumbers	1.32–1.42
Fancy leather workers	.95–1.58	Electricians	1.32–1.47
Bricklayers	1.89	Painters	1.32–1.39

[1] Pensioned by company at end of service; responsible for breakage on their cars.

Among industrial and clerical workers the eight-hour day and the six-day week are in force. In many instances, however, the restrictions on hours are more or less ignored, and in others it is customary to supplement low wages by two or three hours of overtime. The eight-hour law does not apply to domestic servants, there being in fact no restrictions as to their working hours. Workers employed on Sunday and holidays receive double pay, and for ordinary overtime the increase in wage varies from 10 to 50 per cent.

Woman and Child Workers

AMONG the poorer Italian workers, who constitute a great majority of the country's labor, it is customary for all members of the family except the youngest children to be engaged in some form of productive labor. Thus the women and children of the farmer's family work in the fields. In the villages and towns many of the women and girls add appreciably to the household income by embroidering, braiding straw, laundering, dressmaking, etc. Piecework payment is the rule in these occupations, but in general it may be said that the remuneration is low, even the most skilled workers seldom receiving more than from 15 to 18 lire (79 to 95 cents) per day.

The employment of women in clerical and semitechnical occupations is restricted not only by tradition but also by the fact that there is an ample supply of male workers. During the World War the number of women engaged in these lines increased considerably, but with the coming of peace and demobilization a tendency arose (and still exists) to favor the employment of men. Thus in Italian banks no additional woman employees are accepted, though it is understood that those already employed are not to be discharged.

Girls are engaged to a moderate extent as shop clerks, and the number of female stenographers is increasing. The extent of the latter occupation is of course limited by the fact that most commercial enterprises in this district are of small size.

Certain legal restrictions are placed on female minor workers. Children under 18 and women may not, except in a few instances, be employed for night shifts. Male minors under 15 and females under 21 are forbidden to work in a number of industries which are classified as dangerous, overfatiguing, or unhealthy. Children under 12 can not be employed in factories or laboratories or in the construction of buildings. The age limit for mines and other underground industries is 14 years, or where mechanical traction has been installed, 13. No women are allowed to work underground.

Wages in Riga, December, 1927 [1]

AVERAGE daily wages in a number of industries in Riga are quoted in the February number of the monthly bulletin of the Bureau of Statistics of Latvia, as follows:

AVERAGE WAGE PER EIGHT-HOUR DAY IN SPECIFIED INDUSTRY GROUPS IN RIGA, DECEMBER, 1927

[In making conversions into United States money the par value of the lat (19.3 cents) was used]

Industry group	Skilled males	Skilled females	Semi-skilled males	Semi-skilled females	Unskilled males	Unskilled females
Wood	$0.97	----------	$0.77	$0.48	$0.68	$0.37
Furniture	.97	----------	.74	.48	.64	.36
Machines	.90	----------	.62	.37	.62	.35
Rolling stock	.93	----------	.71	----------	.65	.51
Pottery	.99	----------	.68	.43	.56	.32
Buildings and roads	1.08	----------	.86	----------	.74	.36
Chemical products	.85	$0.42	.71	.42	.65	.40
Textile products	.85	.42	.73	.43	.60	.40
Clothing	1.10	.51	.71	.48	.68	.42
Leather	.86	----------	.72	.45	.69	.43
Medical supplies	1.17	----------	.79	.57	.69	.42
Food products	1.08	----------	.86	.42	.63	.40
Liquor, tobacco, condiments	1.37	----------	.79	.45	----------	.40
Paper	1.85	----------	.60	.36	----------	.37
Books	1.79	1.58	.91	.68	----------	----------

Index Numbers of Real Wages in Uruguay, 1915 to 1926

THE Ministry of Industry of Uruguay has recently published an interesting study of the movement of real wages in that country during the years 1914 to 1926.[2]

The movement of nominal and real wages during the period 1915 to 1926, in private industry and in State undertakings, using 1914 as the base, is shown in Table 1:

[1] Latvia. Bureau de Statistique. Bulletin Mensuel, Riga, February, 1928, p. 72.
[2] Uruguay. Ministerio de Industrias. El Salario Real (1914–1926). Montevideo, 1927.

TABLE 1.—INDEX NUMBERS OF NOMINAL AND REAL WAGES, 1915 TO 1926

[1914=base or 100]

Year	Cost-of-living index	Index of nominal wages			Index of real wages		
		Private industry	State undertakings		Private industry	State undertakings	
			Railways	Tramways		Railways	Tramways
1915	108	108	100	100	100	92	92
1916	108	108	100	105	100	92	98
1917	111	108	100	106	98	90	96
1918	117	115	100	111	99	85	95
1919	128	115	110	120	90	86	94
1920	149	146	117	130	98	78	87
1921	139	146	173	130	105	125	94
1922	129	146	173	162	113	134	126
1923	125	146	173	162	118	138	129
1924	123	160	173	162	130	141	132
1925	124	160	173	162	130	141	131
1926	123	160	173	162	130	141	131

A more detailed account of the cost of living indexes which were used to calculate real wages from nominal wages is given in Table 2.

TABLE 2.—INDEX NUMBERS OF COST-OF-LIVING ITEMS FOR WORKER'S FAMILY IN URUGUAY, 1915 TO 1926

[1914=base or 100]

Year	Food	Clothing	Rent	Total	Year	Food	Clothing	Rent	Total
1915	114	102	100	108	1921	133	137	166	139
1916	112	104	100	108	1922	112	146	166	129
1917	116	104	100	111	1923	108	138	166	125
1918	124	110	100	117	1924	110	125	166	123
1919	136	127	100	128	1925	113	123	166	124
1920	151	136	166	149	1926	114	118	166	123

An investigation of labor conditions was recently made in Uruguay covering all the industrial and commercial undertakings in the country, including 12,654 establishments employing 91,436 workers, of which 6,309 were industrial concerns employing 64,434 workers. The findings of the investigation showed that 21 per cent of the adult workers earned less than $355.65, recognized as the minimum of subsistence for a single worker. If annual earnings are compared with the minimum annual cost of living for a worker's family, which is calculated by the Ministry of Industry as $663.05 for 1926, it is found that 40,062, or 57 per cent of the 70,204 adult workers covered by the inquiry, had earnings less than the above minimum.

HOUSING

Building Permits in Principal Cities of the United States in 1927[1]

Introduction and Summary

THE Bureau of Labor Statistics here presents a summary of its eighth annual report of building operations in the principal cities of the United States.

The bureau wishes to thank the local building officials and the various State organizations for their cooperation and interest in this work. The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania are now cooperating with the Federal bureau in this work.

In 1922 it was necessary for the bureau to send its agents to 33⅓ per cent of the cities from which reports were received. In 1926 it was necessary to send to only 10.7 per cent of the cities, and this year agents of the bureau had to visit but 7½ per cent of the cities to compile the data from the records of the local building officials.

Questionnaires asking for the number and estimated cost of each of the different kinds of buildings for which permits were issued in the different cities were sent to each city in the United States which had a population of 25,000 or over, according to the latest estimate by the Census Bureau. Replies were received from 302 cities.

The cost figures presented herewith refer only to the cost of the building. Land costs are not included. A few cities make the owner state the actual cost of the building after completion. The cost as stated on the application is then amended.

A report on this subject showing data in detailed form for each city will be issued later in bulletin form.

Table 1 shows the total number of new buildings and the estimated cost of each of the different kinds of new buildings for which permits were issued in the 302 cities from which schedules were received for the year 1927, the per cent that each kind forms of the total number, the per cent the cost of each kind forms of the total cost, and the average cost per building.

[1] Earlier reports concerning building permits issued in the United States are published in Bulletins Nos. 295, 318, 347, 368, 397, 424, and 449 of the Bureau of Labor Statistics; also in issues of the Labor Review for July, 1921; April, 1922; July and October, 1923; June and October, 1924; June, September, and October, 1925; June, July, and October, 1926; May, June, July, October, and November, 1927.

TABLE 1.—NUMBER AND COST OF NEW BUILDINGS AS STATED BY PERMITS ISSUED IN 302 CITIES DURING CALENDAR YEAR 1927, BY KIND OF BUILDING

Kind of buildings	New buildings for which permits were issued				
	Number of buildings	Per cent of total	Estimated cost		
			Amount	Per cent of total	Average per building
Residential buildings					
One-family dwellings	164,268	37.3	$789,382,883	24.4	$4,805
Two-family dwellings	25,227	5.7	208,578,118	6.4	8,268
One-family and two-family dwellings with stores combined	3,329	.8	34,978,625	1.1	10,507
Multi-family dwellings	13,663	3.1	736,830,499	22.7	53,929
Multi-family dwellings with stores combined	1,783	.4	90,666,916	2.8	50,851
Hotels	201	(1)	69,393,263	2.1	345,240
Lodging houses	79	(1)	1,305,302	(1)	16,523
All other	213	(1)	30,763,923	.9	144,432
Total	208,763	47.4	1,961,899,529	60.5	9,398
Nonresidential buildings					
Amusement buildings	943	.2	128,208,773	4.0	135,958
Churches	1,118	.3	58,890,438	1.8	52,675
Factories and workshops	4,181	.9	141,307,499	4.4	33,798
Public garages	4,192	1.0	74,395,804	2.3	17,747
Private garages	181,859	41.2	65,449,178	2.0	360
Service stations	4,919	1.1	15,022,065	.5	3,054
Institutions	332	.1	75,132,340	2.3	226,302
Office buildings	1,271	.3	242,853,223	7.5	191,073
Public buildings	339	.1	47,450,619	1.5	139,972
Public works and utilities	593	.1	45,389,033	1.4	76,541
Schools and libraries	837	.2	155,542,100	4.8	185,833
Sheds	13,608	3.1	5,091,261	.2	374
Stables and barns	358	.1	823,018	(1)	2,299
Stores and warehouses	13,280	3.0	215,747,108	6.7	16,246
All other	4,283	1.0	7,239,146	.2	1,690
Total	232,113	52.6	1,278,541,605	39.5	5,508
Grand total	440,876	100.0	3,240,441,134	100.0	7,350

[1] Less than one-tenth of 1 per cent.

In the 302 cities from which reports were received for 1927, permits were issued for 440,876 new buildings, and the estimated expenditure for these buildings was $3,240,441,134. Permits were issued for 208,763 new residential buildings, which was 47.4 per cent of the number of new buildings erected. The amount expended for residential buildings was $1,961,899,529, or 60.5 per cent of the total expenditure for new buildings in these 302 cities.

It should be borne in mind that the costs shown in these tables are estimated costs declared in most cities by the prospective builder at the time of applying for his permit to build. Frequently the figures are under the real cost of the building. Many cities charge permit fees according to the cost of the building, and this may cause the builder to underestimate the cost. Another cause is that builders think that a low estimate may make their tax assessment lower. On the other hand, a builder may overestimate the cost in order to impress a prospective buyer.

In some cities the building commissioner carefully checks over the plans and the cost reported and requires the builder to give absolutely correct figures. In most cities, however, the estimate given is accepted if it is apparently reasonable. Reported costs do not show the cost of the land on which the building is erected, but construction costs alone.

One-family dwellings were the most numerous of residential buildings and alone accounted for the largest expenditure of money of any kind of building, either residential or nonresidential. However, if the total of the expenditures for the two classes of apartment houses be considered, it will be found that more money was spent for their erection than for one-family dwellings. Apartment houses accounted for 22.7 per cent of the total expenditure for new buildings and apartment houses with stores combined for 2.8 per cent, a total of 25.5 per cent for the two kinds of multi-family dwellings compared with a percentage of 24.4 for one-family dwellings.

Nonresidential buildings comprised 52.6 per cent of the total new buildings and 39.5 per cent of the total amount expended for the erection of these structures.

There were 232,113 nonresidential buildings erected in these 302 cities in 1927, and of this number 181,859 were private garages. During this year more private garages were erected than one-family dwellings. The largest expenditure for any group of nonresidential buildings was for office buildings. The amount expended for this class of structure was $242,853,223, which was 7.5 per cent of the total expenditure for new buildings. Stores ranked next in importance in the nonresidential group, accounting for 6.7 per cent of the total amount spent.

The last column of Table 1 shows the average cost of each kind of new building. One-family dwellings cost $4,805 per building in these cities during 1927. The largest average expenditure per building in either the residential or nonresidential group was for hotels, the average cost of the 201 hotels for which permits were issued in these cities being $345,240. The average cost of all residential buildings was $9,398.

Institutional buildings accounted for the largest expenditure per building of any class of nonresidential buildings, the average cost of these new hospitals, "homes," etc., being $226,302. Office buildings and schools followed next in order with average expenditures per building of $191,073 and $185,833, respectively.

The average cost of all nonresidential buildings was $5,508, and of all new buildings both residential and nonresidential, $7,350.

Families Provided For

Table 2 shows the number and per cent of families provided for by each of the different kinds of dwellings for which permits were issued in 292 identical cities in 1926 and 1927.

TABLE 2.—NUMBER AND PER CENT OF FAMILIES TO BE HOUSED IN NEW DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 292 IDENTICAL CITIES DURING THE CALENDAR YEARS 1926 AND 1927, BY KIND OF DWELLING

Kind of dwelling	Number of new buildings for which permits were issued		Families provided for			
			Number		Per cent	
	1926	1927	1926	1927	1926	1927
One-family dwellings	200,373	162,499	200,373	162,499	41.7	39.1
Two-family dwellings	29,860	25,086	59,720	50,172	12.4	12.1
One-family and two-family dwellings with stores combined	4,169	3,320	6,870	5,380	1.4	1.3
Multi-family dwellings	14,993	13,612	197,138	178,596	41.0	42.9
Multi-family dwellings with stores combined	1,502	1,769	16,597	19,401	3.5	4.7
Total	250,897	206,286	480,698	416,048	100.0	100.0

In the 292 cities from which reports were received for both 1926 and 1927, habitations were provided for 206,286 families in 1927. compared with 250,897 in 1926, a decrease of 44,611 in the number of new family dwelling places. In other words, the number of families provided for in new buildings decreased 17.8 per cent in 1927 as compared with 1926.

One-family dwellings provided 41.7 per cent of the new housing units in 1926, but only 39.1 per cent in 1927. On the other hand, 42.9 per cent of the families provided for in 1927 were provided for in apartment houses, compared with 41.0 per cent in 1926. Two-family dwellings provided for 12.4 per cent of the families provided for during 1926 and 12.1 per cent during 1927.

Table 3 shows the number and percentage distribution of families provided for in the different kinds of dwellings in the 257 identical cities from which reports were received in each year from 1921 to 1927, inclusive.

TABLE 3.—NUMBER AND PER CENT OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF DWELLINGS IN 257 IDENTICAL CITIES, 1921 TO 1927, INCLUSIVE

Year	Number of families provided for in—				Per cent of families provided for in—		
	One-family dwellings	Two-family dwellings [1]	Multi-family dwellings [2]	All classes of dwellings	One-family dwellings	Two-family dwellings [1]	Multi-family dwellings [2]
1921	130,873	38,858	54,814	224,545	58.3	17.3	24.4
1922	179,364	80,252	117,689	377,305	47.5	21.3	31.2
1923	207,632	96,344	149,697	453,673	45.8	21.2	33.0
1924	210,818	95,019	137,082	442,919	47.6	21.5	30.9
1925	226,159	86,145	178,918	491,222	46.0	17.5	36.4
1926	188,074	64,298	209,842	462,214	40.7	13.9	45.4
1927	155,512	54,320	196,263	406,095	38.3	13.4	48.3

[1] Includes one-family and two-family dwellings with stores combined.
[2] Includes multi-family dwellings with stores combined.

In 1921 there were 224,545 families provided with new dwelling accommodations in these 257 cities; of this number 58.3 per cent were provided for in one-family dwellings and only 24.4 per cent in apartment houses. In no year since 1921, however, have more than half the families provided for been housed in single family dwellings. The percentage domiciled in new separate homes was 47.5 per cent in 1922, fell to 45.8 per cent in 1923, rose to 47.6 per cent in 1924, and has been falling every year since, until during 1927 only 38.3 per cent of the families cared for were housed in one-family dwellings.

In contrast, the families housed in apartment houses have shown an increase each year over the preceding year except in 1924, when there was a slight decrease over 1923. In 1927 the percentage of families provided for in apartment houses was 48.3 Two-family dwellings provided for 17.3 per cent of the total number of families housed in new buildings in 1921, and in 1924 a peak of 21.5 per cent was reached by this class of dwelling. The percentage has decreased steadily since that year until it accounted for only 13.4 of all new family housing units in 1927.

In 1921 there were 224,545 families provided for in all classes of dwellings in the 257 cities. The number of housing units built steadily increased, except for a slight drop in 1924, until a peak of 491,222 was reached in 1925. That is, 118.8 per cent more family housing units were erected in 1925 than in 1921. During 1927 homes were provided for 406,095 families in these 257 cities, which is 80.9 per cent more homes than were provided in 1921.

Building Trend, 1926 and 1927

Table 4 shows the number and cost of the different kinds of buildings for the 292 identical cities from which reports were received in 1926 and 1927, and the per cent of increase or decrease in the number and in the cost in 1927 as compared with 1926.

TABLE 4.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 292 IDENTICAL CITIES DURING THE CALENDAR YEARS 1926 AND 1927, BY KIND OF BUILDING

Kind of building	New buildings for which permits were issued				Per cent of increase (+) or decrease (−) in the year 1927 compared with the year 1926	
	1926		1927			
	Number	Cost	Number	Cost	Number	Cost
Residential buildings						
One-family dwellings	200,373	$938,577,815	162,499	$778,308,271	−18.9	−17.1
Two-family dwellings	29,860	250,794,978	25,086	207,262,418	−16.0	−17.4
One-family and two-family dwellings with stores combined	4,169	44,105,260	3,320	34,888,475	−20.4	−20.9
Multi-family dwellings	14,993	793,497,118	13,612	734,224,604	−9.2	−7.5
Multi-family dwellings with stores combined	1,502	81,161,524	1,769	89,900,816	+17.8	+10.8
Hotels	306	145,278,045	201	69,393,263	−34.3	−52.2
Lodging houses	60	808,020	77	1,294,302	+28.3	+60.2
Other	233	38,354,493	208	30,339,123	−10.7	−20.9
Total	251,496	2,292,577,253	206,772	1,945,611,272	−17.8	−15.1
Nonresidential buildings						
Amusement buildings	963	135,480,162	941	127,898,773	−2.3	−5.6
Churches	1,188	66,698,198	1,108	58,638,788	−6.7	−12.1
Factories and workshops	4,855	179,854,268	4,139	139,223,156	−14.8	−22.6
Public garages	4,456	75,510,070	4,166	74,123,656	−6.5	−1.8
Private garages	197,106	78,100,478	180,174	64,943,685	−8.6	−16.8
Service stations	4,250	15,305,294	4,861	14,855,885	+14.4	−2.9
Institutions	290	49,630,473	329	74,873,700	+13.4	+50.9
Office buildings	1,711	262,563,433	1,266	242,078,223	−26.0	−7.8
Public buildings	277	31,681,285	334	46,149,742	+20.6	+45.7
Public work and utilities	779	43,828,750	583	44,814,183	−25.2	+2.2
Schools and libraries	886	152,728,630	820	153,977,401	−7.5	+.8
Sheds	16,523	7,356,149	13,543	5,048,494	−18.0	−31.4
Stables and barns	507	845,058	339	805,083	−33.1	−4.7
Stores and warehouses	15,702	216,380,712	13,096	213,022,251	−16.6	−1.6
All other	5,872	15,446,801	4,206	7,141,587	−28.4	−53.8
Total	255,365	1,331,409,761	229,905	1,267,594,607	−10.0	−4.8
Grand total	506,861	3,623,987,014	436,677	3,213,205,879	−13.9	−11.3

There was a decrease of 13.9 per cent in the number of new buildings for which permits were issued in 1927 as compared with 1926 and a decrease of 11.3 per cent in the amount expended for the erection of new buildings. The decrease in both the number and cost of residential buildings was greater than the decrease in nonresidential buildings. There was a decrease of 17.8 per cent in the number and a decrease of 15.1 per cent in the cost of residential buildings. Nonresidential buildings decreased 10.0 per cent in number and 4.8 per cent in cost.

All classes of residential buildings decreased both in number and in cost except multi-family dwellings with stores combined and lodging houses. The greatest decrease shown in the residential group was by hotels, which decreased 34.3 per cent in number and 52.2 per cent in money expended. One-family dwellings decreased 18.9 per cent in number and 17.1 per cent in money expended in 1927 as compared with 1926. Apartment houses, however, decreased only 9.2 per cent in number and 7.5 per cent in cost.

In the nonresidential group only two classes of buildings showed increases in both number and cost, public buildings, which increased 20.6 per cent in number and 45.7 per cent in money expended, and institutional buildings, which are usually public or semipublic in character, which increased 13.4 per cent in number and 50.9 per cent in amount expended.

Service stations showed an increase in number, but a decrease in cost, while public works and utilities and schools and libraries showed a decrease in number but an increase in the amount expended in their construction.

In 1926 the amount expended for new buildings of all classes in these 292 cities was $3,623,987,014, of which $2,292,577,253 was for residential buildings and $1,331,409,761 was for nonresidential buildings. In 1927 the total amount expended for new buildings was $3,213,205,879, consisting of $1,945,611,272 for residential buildings and $1,267,594,607 for nonresidential buildings.

Per Capita Expenditure for Buildings

Table 5 shows the total and per capita expenditures for new buildings, new housekeeping dwellings, repairs and additions, and for all kinds of buildings in each of the 302 cities for which reports were received for the calendar year 1927; the total number of families provided for and the ratio of families provided for to each 10,000 of population in these 302 cities; and the total expenditure for all classes of buildings for 292 cities in 1926.

In these 302 cities in 1927 there was expended for building operations of all kinds $3,593,839,405. Of this amount, $3,240,441,134 was for new buildings and $353,398,271 for repairs and alterations to old buildings. Of the amount expended for new buildings $1,860,437,041 was for housekeeping dwellings.

The 302 cities from which reports were received in 1927 had a population on July 1, 1927, of 43,919,581, according to the estimate of the Census Bureau. The per capita expenditure for all building operations was $81.83, the per capita expenditure for new buildings

was $73.78, and for repairs $8.05. The expenditure per person for homes was $42.36.

The five leading cities in per capita expenditure were Irvington, N. J., $374.57; White Plains, N. Y., $352.82; Evanston, Ill., $343.04; Pontiac, Mich., $325.15; and Mount Vernon, N. Y., $314.74. Residential building accounted for this large expenditure for building in all of these cities except Pontiac. In Pontiac the large expenditure was largely accounted for by several very large factory buildings. It will be noted that the four cities where residential building accounted for the large per capita expenditure are suburban cities.

Following is a list of the five leading cities in total expenditure for building operations from 1920 to date.

1920		1924	
New York	$277, 695, 337	New York	$836, 043, 604
Chicago	84, 602, 650	Chicago	308, 911, 159
Detroit	77, 737, 215	Detroit	160, 547, 723
Cleveland	64, 198, 600	Los Angeles	150, 147, 516
Los Angeles	60, 023, 600	Philadelphia	141, 402, 655
1921		1925	
New York	442, 285, 248	New York	1, 020, 604, 713
Chicago	133, 027, 910	Chicago	373, 803, 571
Cleveland	86, 680, 023	Detroit	180, 132, 528
Los Angeles	82, 761, 386	Philadelphia	171, 034, 280
Detroit	58, 086, 053	Los Angeles	152, 646, 436
1922		1926	
New York	645, 176, 481	New York	1, 039, 670, 572
Chicago	229, 853, 125	Chicago	376, 808, 480
Los Angeles	121, 206, 787	Detroit	183, 721, 443
Philadelphia	114, 190, 525	Philadelphia	140, 093, 075
Detroit	93, 614, 593	Los Angeles	123, 006, 215
1923		1927	
New York	789, 265, 335	New York	880, 333, 455
Chicago	334, 164, 404	Chicago	365, 065, 042
Los Angeles	200, 133, 181	Detroit	145, 555, 647
Detroit	129, 719, 831	Los Angeles	123, 027, 139
Philadelphia	128, 227, 405	Philadelphia	117, 590, 650

In the 302 cities shown in Table 5 the number of families provided for was 418,878; that is, new family accommodations were provided for at the rate of 95.4 to each 10,000 of population. Irvington, N. J., provided for more families in accordance with its population than any other city in the country, there being 740.5 families provided for to each 10,000 of population.

Following are the five cities having the highest ratio of families provided for to each 10,000 of population, 1921 to 1927. In 1927 the five cities are suburbs of New York City, and, excepting Yonkers, each has a population of less than 100,000.

1921	
Long Beach	631.9
Los Angeles	320.9
Pasadena	251.7
Shreveport	249.8
Lakewood	191.3
1922	
Long Beach	1,081.0
Los Angeles	441.6
Lakewood	358.9
Miami	268.1
East Cleveland	267.6
1923	
Long Beach	1,038.1
Los Angeles	657.4
Miami	611.1
Irvington	432.1
Lakewood	381.5
1924	
Miami [1]	2,248.9
Irvington	501.2
1924—Continued	
Los Angeles [2]	448.3
San Diego	378.0
Long Beach	347.6
1925	
Miami [1]	1,342.0
San Diego	392.0
Tampa	379.3
Irvington	374.6
Los Angeles [2]	331.0
1926	
St. Petersburg	700.3
Mount Vernon	644.7
Irvington	398.6
White Plains	367.2
San Diego	339.5
1927	
Irvington	740.5
White Plains	419.5
Mount Vernon	414.8
Yonkers	349.0
East Orange	338.1

[1] The ratio of families provided for in Miami in 1924 was based on the population as estimated by the Census Bureau for that year. In the light of the actual census taken by State enumeration in 1925, it would seem that the estimate for 1924 was below the actual population for that year, hence the ratio here shown for 1924 is probably higher than the actual population in that year would warrant.

[2] Population not estimated in 1924 or 1925; 1923 estimate used.

TABLE 5.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS

City and State	Expenditure for new buildings, 1927	Expenditure for repairs and additions, 1927	Total expenditures		Expenditure for new housekeeping dwellings only, 1927
			1927	1926	
Akron, Ohio	$19,197,412	$998,676	$20,196,088	$15,982,936	$12,191,595
Alameda, Calif	1,416,457	120,473	1,536,930	2,238,799	923,556
Albany, N. Y	13,366,615	2,822,128	16,188,743	25,753,739	6,938,500
Allentown, Pa	5,912,975	675,194	6,588,169	9,217,895	3,557,700
Altoona, Pa	2,558,515	482,789	3,041,304	3,023,102	1,392,135
Amsterdam, N. Y	565,030	42,500	607,530	1,696,450	439,500
Anderson, Ind	1,950,405	262,977	2,213,382	1,506,287	1,206,100
Asheville, N. C	5,258,893	728,260	5,987,153	9,298,348	1,725,160
Ashtabula, Ohio	418,680	78,100	496,780	916,376	169,700
Atlanta, Ga	10,518,982	1,341,925	11,860,907	17,174,852	6,885,011
Atlantic City, N. J	4,632,308	1,190,556	5,822,864	9,254,671	1,677,968
Auburn, N. Y	662,302	180,892	843,194	478,102	111,700
Augusta, Ga	1,121,352	337,738	1,459,090	1,167,486	901,318
Aurora, Ill	2,455,987	335,541	2,791,528	4,932,142	1,991,525
Baltimore, Md	22,665,700	5,772,090	28,437,790	42,456,205	14,355,000
Bangor, Me	809,055	42,300	851,355	410,835	136,600
Battle Creek, Mich	4,539,041	212,825	4,751,866	4,510,519	918,475
Bay City, Mich	382,045	393,164	775,209	919,568	161,425
Bayonne, N. J	1,833,000	116,950	1,949,950	2,875,737	848,800
Bellingham, Wash	1,477,502	309,608	1,787,110	2,284,722	826,910
Berkeley, Calif	5,753,684	929,384	6,683,068	7,333,682	3,730,780
Bethlehem, Pa	1,927,041	549,580	2,476,621	2,151,442	1,279,850
Binghamton, N. Y	3,219,660	1,071,249	4,290,909	3,277,545	1,292,050
Birmingham, Ala	19,931,656	1,855,040	21,786,696	17,170,775	10,183,764
Bloomfield, N. J	6,754,577	125,500	6,880,077	(1)	5,261,500
Bloomington, Ill	847,200	77,000	924,200	1,178,550	520,000
Boston, Mass	50,639,474	10,347,994	60,987,468	51,484,404	22,722,143
Bridgeport, Conn	4,455,512	731,200	5,186,712	3,457,992	2,160,960
Brockton, Mass	1,202,120	231,239	1,433,359	1,879,405	864,175
Brookline, Mass	5,401,177	501,263	5,902,440	4,951,499	4,039,650
Buffalo, N. Y	31,530,831	1,542,622	33,073,453	27,413,296	13,257,157
Burlington, Iowa	664,140	57,000	721,140	1,070,000	247,140
Butte, Mont	42,048	26,201	68,249	444,631	10,000
Cambridge, Mass	8,357,995	1,199,474	9,557,469	8,270,460	3,107,150
Camden, N. J	4,710,615	619,712	5,330,327	6,571,447	2,279,550
Canton, Ohio	3,716,689	439,331	4,156,020	5,321,262	2,531,550
Cedar Rapids, Iowa	2,256,051	346,571	2,602,622	6,219,714	637,815
Central Falls, R. I	764,315	34,415	798,730	1,248,986	259,100
Charleston, S. C	257,384	328,715	586,099	466,113	91,250
Charleston, W. Va	1,518,934	519,775	2,038,709	3,180,772	855,900
Charlotte, N. C	4,733,425	821,459	5,554,884	7,181,609	3,119,760
Chattanooga, Tenn	4,030,150	844,051	4,874,201	4,807,723	1,507,180
Chelsea, Mass	564,905	301,155	866,060	1,084,894	423,300
Chester, Pa	2,124,340	271,925	2,396,265	3,585,730	1,461,500
Chicago, Ill	353,641,185	11,423,857	365,065,042	376,808,480	226,890,750
Chicopee, Mass	1,039,960	77,150	1,117,110	1,556,710	427,500
Cicero, Ill	4,482,125	153,704	4,635,829	5,322,457	3,328,400
Cincinnati, Ohio	25,785,189	4,785,110	30,570,299	29,256,952	18,485,884
Clarksburg, W. Va	912,580	95,055	1,007,635	556,035	233,800
Cleveland, Ohio	36,138,800	9,341,750	45,480,550	61,776,575	17,413,100
Clifton, N. J	3,304,485	84,080	3,388,565	3,800,665	2,774,785
Colorado Springs, Colo	350,745	226,653	577,398	777,361	236,075
Columbia, S. C	1,401,555	131,820	1,533,375	1,449,016	808,350
Columbus, Ga	1,331,275	208,474	1,539,749	1,251,030	990,643
Columbus, Ohio	21,288,950	1,993,650	23,282,600	25,250,700	11,859,300
Council Bluffs, Iowa	787,300	142,950	930,250	2,022,250	466,300
Covington, Ky	1,462,810	259,500	1,722,310	2,151,500	1,022,700
Cranston, R. I	2,595,734	73,900	2,669,634	2,915,184	2,262,050
Cumberland, Md	841,894	100,571	942,465	765,615	484,288
Dallas, Tex	7,955,401	1,818,122	9,773,523	16,122,976	2,453,030
Danville, Ill	915,498	121,293	1,036,791	1,362,900	833,196
Davenport, Iowa	1,914,617	138,734	2,053,351	1,183,326	586,170
Dayton, Ohio	8,682,996	1,649,030	10,332,026	11,011,483	4,488,900
Decatur, Ill	5,537,220	253,195	5,790,415	5,405,302	3,185,400
Denver, Colo	13,731,550	2,023,050	15,754,600	13,873,450	7,855,900
Des Moines, Iowa	2,567,715	308,416	2,876,131	5,868,645	1,514,104
Detroit, Mich	132,154,383	13,401,264	145,555,647	183,721,443	64,181,967
Dubuque, Iowa	1,059,062	229,145	1,288,207	1,729,194	252,325
Duluth, Minn	3,248,840	1,182,595	4,431,435	5,685,986	1,426,174
Durham, N. C	2,437,511	150,243	2,587,754	3,370,904	1,374,305
East Chicago, Ind	3,963,039	341,327	4,304,366	4,135,904	1,951,242
East Cleveland, Ohio	1,183,135	37,485	1,220,620	1,533,950	963,000
Easton, Pa	988,212	311,458	1,299,670	1,738,411	522,785

[1] Not estimated by Census Bureau.

[2] Estimate as of July 1, 1926.

AND FOR REPAIRS, AND FAMILIES PROVIDED FOR, IN 302 CITIES IN 1927

City and State	Estimated population July 1, 1927	Families provided for		Per capita expenditure, 1927				Per capita expenditure for housekeeping dwellings only, 1927
		Number	Ratio per 10,000	For new buildings	For repairs and additions	Total	Rank of city	
Akron, Ohio	(1)	2,521						
Alameda, Calif	[3] 32,400	239	73.8	$43.72	$3.72	$47.44	152	$28.50
Albany, N. Y	119,500	558	46.7	111.85	23.62	135.47	24	58.06
Allentown, Pa	97,000	681	70.2	60.96	6.96	67.92	86	36.68
Altoona, Pa	67,800	282	41.6	37.74	7.12	44.86	160	20.53
Amsterdam, N. Y	35,900	67	18.7	15.74	1.18	16.92	262	12.24
Anderson, Ind	[3] 34,600	456	131.8	56.37	7.60	63.97	92	34.86
Asheville, N. C	[3] 32,000	449	140.3	164.34	22.76	187.10	9	53.91
Ashtabula, Ohio	[3] 25,500	38	14.9	16.42	3.06	19.48	255	6.65
Atlanta, Ga	249,000	2,563	102.9	42.24	5.39	47.63	151	27.65
Atlantic City, N. J	54,200	248	45.8	85.47	21.97	107.43	37	30.96
Auburn, N. Y	[3] 35,677	20	5.6	18.56	5.07	23.63	244	3.13
Augusta, Ga	56,200	344	61.2	19.95	6.01	25.96	237	16.04
Aurora, Ill	46.500	418	89.9	52.82	7.22	60.03	105	42.83
Baltimore, Md	819,000	3,546	43.3	27.67	7.05	34.72	199	17.53
Bangor, Me	[3] 26,800	33	12.3	30.19	1.58	31.77	218	5.10
Battle Creek, Mich	46,100	268	58.1	98.46	4.62	103.08	40	19.92
Bay City, Mich	49,400	42	8.5	7.73	7.96	15.69	267	3.27
Bayonne, N. J	93,100	344	36.9	19.69	1.26	20.94	253	9.12
Bellingham, Wash	[3] 26,300	348	132.3	56.18	11.77	67.95	85	31.44
Berkeley, Calif	69,400	867	124.9	82.91	13.39	96.30	45	53.76
Bethlehem, Pa	66,000	230	34.8	29.20	8.33	37.52	188	19.39
Binghamton, N. Y	73,900	310	41.9	43.57	14.50	58.06	111	17.48
Birmingham Ala	217,500	3,019	138.8	91.64	8.53	100.17	41	46.82
Bloomfield, N. J	(1)	1,062						
Bloomington, Ill	[3] 30,700	96	31.3	27.60	2.51	30.10	225	16.94
Boston, Mass	793,100	5,316	67.0	63.85	13.05	76.90	67	28.65
Bridgeport, Conn	[3] 143,535	497	34.6	31.04	5.09	36.14	193	15.06
Brockton, Mass	[3] 65,343	176	26.9	18.40	3.54	21.94	249	13.23
Brookline, Mass	44,800	472	105.4	120.56	11.19	131.75	26	90.17
Buffalo, N. Y	550,000	3,373	61.3	57.33	2.80	60.13	104	24.10
Burlington, Iowa	[3] 27,100	93	34.3	24.51	2.10	26.61	233	9.12
Butte, Mont	43,300	1	.2	.97	.61	1.58	283	.23
Cambridge, Mass	123,900	636	51.3	67.46	9.68	77.14	66	25.08
Camden, N. J	133,100	559	42.0	35.39	4.66	40.05	174	17.13
Canton, Ohio	113,300	512	45.2	32.80	3.88	36.68	192	22.34
Cedar Rapids, Iowa	54,100	145	26.8	41.70	6.41	48.11	148	11.79
Central Falls, R. I	[3] 25,700	74	28.8	29.74	1.34	31.08	221	10.08
Charleston, S. C	75,000	38	5.1	3.43	4.38	7.81	280	1.22
Charleston, W. Va	53,400	269	50.4	28.44	9.73	38.18	185	16.03
Charlotte, N. C	55,900	1,052	188.2	84.68	14.70	99.37	42	55.81
Chattanooga, Tenn	72,900	596	81.8	55.28	11.58	66.86	89	20.67
Chelsea, Mass	49,000	107	21.8	11.53	6.15	17.67	261	8.64
Chester, Pa	72,300	361	49.9	29.38	3.76	33.14	211	20.21
Chicago, Ill	3,102,800	41,201	132.8	113.97	3.68	117.66	33	73.12
Chicopee, Mass	44,300	110	24.8	23.48	1.74	25.22	239	9.65
Cicero, Ill	68,500	559	81.6	65.43	2.24	67.68	87	48.59
Cincinnati, Ohio	412,200	3,212	77.9	62.56	11.61	74.16	72	44.85
Clarksburg, W. Va	[3] 30,900	76	24.6	29.53	3.08	32.61	214	7.57
Cleveland, Ohio	972,500	3,631	37.3	37.16	9.61	46.77	154	17.91
Clifton, N. J	[3] 36,200	567	156.6	91.28	2.32	93.61	47	76.65
Colorado Springs, Colo	(1)	67						
Columbia, S. C	50,000	206	41.2	28.03	2.64	30.67	224	16.17
Columbus, Ga	45,800	325	71.0	29.07	4.55	33.62	204	21.63
Columbus, Ohio	291,400	2,430	83.4	73.06	6.84	79.90	61	40.70
Council Bluffs, Iowa	41,600	136	32.7	18.93	3.44	22.36	248	11.21
Covington, Ky	58,700	346	58.9	24.92	4.42	29.34	228	17.42
Cranston, R. I	36,600	452	123.5	70.92	2.02	72.94	73	61.80
Cumberland, Md	[3] 34,400	110	32.0	24.47	2.92	27.40	229	14.08
Dallas, Tex	211,600	986	46.6	37.60	8.59	46.19	156	11.59
Danville, Ill	38,200	192	50.3	23.97	3.18	27.14	232	32.98
Davenport, Iowa	[3] 52,469	125	23.8	36.49	2.64	39.13	180	11.17
Dayton, Ohio	180,700	1,201	66.5	48.05	9.13	57.18	116	24.84
Decatur, Ill	56,000	613	109.5	98.88	4.52	103.40	39	57.06
Denver, Colo	289,800	1,847	63.7	47.38	6.98	54.36	127	27.11
Des Moines, Iowa	148,900	360	24.2	17.24	2.07	19.32	256	10.17
Detroit, Mich	1,334,500	15,614	117.0	99.03	10.04	109.07	36	48.09
Dubuque, Iowa	41,900	67	16.0	25.28	5.47	30.74	223	6.02
Duluth, Minn	114,700	303	26.4	28.32	10.31	38.64	183	12.43
Durham, N. C	45,700	508	111.2	53.34	3.29	56.62	120	30.07
East Chicago, Ind	49,100	406	82.7	80.71	6.95	87.67	52	39.74
East Cleveland, Ohio	[3] 39,400	258	65.5	30.03	.95	30.98	222	24.44
Easton, Pa	37,900	77	20.3	26.07	8.22	34.29	201	13.79

[3] State census, Jan. 1, 1925.

[4] Data not collected.

TABLE 5.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND

City and State	Expenditure for new buildings, 1927	Expenditure for repairs and additions, 1927	Total expenditures		Expenditure for new housekeeping dwellings only, 1927
			1927	1926	
East Orange, N. J	$11,610,384	$702,708	$12,313,092	$9,034,924	$9,981,850
East Providence, R. I	2,331,700	58,000	2,389,700	2,278,950	1,109,400
East St. Louis, Ill	5,320,833	242,138	5,562,971	4,469,348	2,160,097
Elgin, Ill	1,594,083	297,800	1,891,883	3,611,282	1,204,560
Elizabeth, N. J	9,966,500	956,377	10,922,877	11,165,855	5,599,000
Elkhart, Ind	2,603,043	57,523	2,660,566	(1)	859,605
Elmira, N. Y	978,646	333,137	1,311,783	2,561,884	765,962
El Paso, Tex	1,168,782	623,779	1,792,561	1,202,431	475,565
Erie, Pa	3,831,235	1,561,821	5,393,056	6,090,821	2,221,900
Evanston, Ill	15,203,355	713,870	15,917,225	15,825,670	11,870,500
Evansville, Ind	3,146,640	269,358	3,415,998	4,467,789	1,530,900
Everett, Mass	1,905,515	192,315	2,097,830	3,485,255	1,319,500
Fall River, Mass	1,531,294	309,474	1,840,768	2,156,141	1,089,884
Fitchburg, Mass	577,407	60,568	637,975	1,563,888	234,900
Flint, Mich	20,817,834	1,269,617	22,087,451	13,028,751	11,830,881
Fond du Lac, Wis	674,445	325,734	1,000,179	974,695	295,740
Fort Wayne, Ind	5,559,636	442,862	6,002,498	7,751,203	2,478,725
Forth Worth, Tex	23,737,241	4,746,523	28,483,764	19,402,280	12,701,490
Fresno, Calif	2,196,880	493,698	2,690,578	1,806,744	537,161
Galveston, Tex	1,994,942	979,473	2,974,415	3,200,920	1,085,414
Gary, Ind	11,095,082	3,921,447	15,016,529	22,074,162	5,939,512
Grand Rapids, Mich	10,716,570	1,602,850	12,319,420	16,868,650	6,916,600
Great Falls, Mont	1,006,334	156,785	1,163,119	574,824	482,103
Green Bay, Wis	2,298,011	210,887	2,508,898	(1)	769,555
Greensboro, N. C	4,346,940	490,890	4,837,830	(1)	2,158,522
Greenville, S. C	763,895	347,287	1,111,182	912,735	425,175
Greenwich, Conn	5,347,825	352,237	5,700,062	(1)	4,159,335
Hagerstown, Md	1,398,560	159,645	1,558,205	913,232	397,085
Hamilton, Ohio	1,740,909	41,840	1,782,749	2,528,761	1,244,724
Hammond, Ind	6,209,300	221,900	6,431,200	6,635,492	4,999,700
Hamtramck, Mich	1,062,150	483,665	1,545,815	1,933,159	288,550
Harrisburg, Pa	2,354,890	1,214,475	3,569,365	4,333,265	1,811,100
Hartford, Conn	14,936,053	2,593,888	17,529,941	16,216,851	6,099,139
Haverhill, Mass	652,300	257,325	909,625	844,715	386,100
Hazelton, Pa	1,791,317	281,187	2,072,504	2,380,995	793,288
Highland Park, Mich	2,375,525	279,435	2,654,960	4,819,035	1,296,000
Hoboken, N. J	1,121,150	398,449	1,519,599	1,230,208	72,000
Holyoke, Mass	1,513,250	530,950	2,044,200	2,607,125	1,283,050
Houston, Tex	26,571,799	754,676	27,326,475	28,497,685	15,100,955
Huntington, W. Va	1,415,636	131,514	1,547,150	1,840,056	630,725
Indianapolis, Ind	19,828,728	3,853,588	23,682,316	19,030,292	9,401,259
Irvington, N. J	12,677,855	282,372	12,960,227	9,506,085	11,469,928
Jackson, Mich	2,325,948	249,696	2,575,644	4,180,018	910,100
Jacksonville, Fla	11,447,555	1,320,831	12,768,386	20,789,226	6,413,025
Jamestown, N. Y	2,328,075	417,760	2,745,835	2,146,426	1,005,300
Jersey City, N. J	12,511,625	1,340,155	13,851,780	20,902,723	4,652,800
Johnstown, Pa	1,088,378	297,805	1,386,183	3,913,085	659,195
Joliet, Ill	2,432,550	361,150	2,793,700	(1)	1,503,600
Joplin, Mo	1,137,375	218,158	1,355,533	1,654,533	414,200
Kalamazoo, Mich	1,839,158	383,888	2,223,046	1,983,590	641,100
Kansas City, Kans	1,461,315	125,475	1,586,790	2,519,625	720,950
Kansas City, Mo	13,142,696	1,679,640	14,822,336	21,576,420	8,735,864
Kearny, N. J	5,740,795	55,080	5,795,875	3,808,421	2,747,400
Kenosha, Wis	4,171,492	296,961	4,468,453	5,122,352	1,633,297
Kingston, N. Y	1,715,520	424,573	2,140,093	1,644,654	719,400
Knoxville, Tenn	5,194,115	505,302	5,699,417	10,710,451	3,007,253
Kokomo, Ind	403,679	76,416	480,095	464,101	163,500
Lakewood, Ohio	3,388,565	127,834	3,516,399	4,293,340	2,888,755
Lancaster, Pa	2,381,510	623,328	3,044,838	2,328,107	1,360,400
Lansing, Mich	7,078,680	251,740	7,330,420	4,492,836	1,795,165
Lawrence, Mass	738,945	174,189	913,134	1,729,242	204,800
Lebanon, Pa	431,500	173,000	604,500	1,025,450	191,500
Lewiston, Me	454,100	15,000	469,100	419,100	135,500
Lexington, Ky	2,111,818	239,167	2,350,985	2,185,051	971,558
Lima, Ohio	482,335	224,978	707,313	1,234,053	152,600
Lincoln, Nebr	4,216,138	182,402	4,398,540	5,935,975	1,889,590
Little Rock, Ark	2,478,645	514,991	2,993,636	6,888,226	1,613,018
Long Beach, Calif	12,899,105	740,320	13,639,425	8,565,181	4,470,365
Lorain, Ohio	1,203,449	97,085	1,300,534	1,664,399	811,300
Los Angeles, Calif	106,148,223	16,878,916	123,027,139	123,006,215	62,078,117

[1] Not estimated by Census Bureau. [2] Estimate as of July 1, 1926. [3] State census, Jan. 1, 1925.

FOR REPAIRS, AND FAMILIES PROVIDED FOR, IN 302 CITIES IN 1927—Continued

City and State	Estimated population July 1, 1927	Families provided for		Per capita expenditure, 1927				Per capita expenditure for housekeeping dwellings only, 1927
		Number	Ratio per 10,000	For new buildings	For repairs and additions	Total	Rank of city	
East Orange, N. J.	63,300	2,140	338.1	$183.42	$11.10	$194.52	8	$157.69
East Providence, R. I.	[2] 27,100	249	91.9	86.04	2.14	88.18	51	40.94
East St. Louis, Ill.	73,100	585	80.0	72.79	3.31	76.10	69	29.55
Elgin, Ill.	35,000	262	74.9	45.55	8.51	54.05	129	34.42
Elizabeth, N. J.	(1)	1,650						
Elkhart, Ind.	(1)	224						
Elmira, N. Y.	49,500	116	23.4	19.77	6.73	26.50	234	15.47
El Paso, Tex.	113,500	158	13.9	10.30	5.50	15.79	266	4.19
Erie, Pa.	(1)	444						
Evanston, Ill.	46,400	1,423	306.7	327.66	15.39	343.04	3	255.83
Evansville, Ind.	96,600	420	43.5	32.57	2.79	35.36	198	15.85
Everett, Mass.	42,900	440	102.6	44.42	4.48	48.90	144	30.76
Fall River, Mass.	132,600	251	18.9	11.55	2.33	13.88	271	8.22
Fitchburg, Mass.	44,700	67	15.0	12.92	1.35	14.27	270	5.26
Flint, Mich.	142,700	3,559	249.4	145.89	8.90	154.78	19	82.91
Fond du Lac, Wis.	[2] 26,500	86	32.5	25.45	12.29	37.74	186	11.16
Fort Wayne, Ind.	103,100	485	47.0	53.92	4.30	58.22	110	24.04
Fort Worth Tex.	163,600	3,160	193.2	145.09	29.01	174.11	13	77.64
Fresno, Calif.	62,200	157	25.2	35.32	7.94	43.26	164	8.64
Galveston, Tex.	49,900	571	114.4	39.98	19.63	59.61	107	21.75
Gary, Ind.	85,200	1,675	196.6	130.22	46.03	176.25	12	69.71
Grand Rapids, Mich.	161,900	1,709	105.6	66.19	9.90	76.09	70	42.72
Great Falls, Mont.	[2] 30,900	250	80.9	32.57	5.07	37.64	187	15.60
Green Bay, Wis.	35,500	168	47.3	64.73	5.94	70.67	79	21.68
Greensboro, N. C.	50,300	455	90.5	86.42	9.76	96.18	46	42.91
Greenville, S. C.	[2] 28,100	119	42.3	27.18	12.36	39.54	197	15.13
Greenwich, Conn.	(1)	363						
Hagerstown, Md.	[2] 32,000	97	30.3	43.71	4.99	48.69	146	12.41
Hamilton, Ohio	43,770	362	82.7	39.77	.96	40.73	171	28.44
Hammond, Ind.	54,200	1,141	210.5	114.56	4.09	118.66	31	92.25
Hamtramck, Mich.	93,800	70	7.5	11.32	5.16	16.48	265	3.08
Harrisburg, Pa.	85,700	319	37.2	27.48	14.17	41.65	167	21.13
Hartford, Conn.	168,300	1,270	75.5	88.75	15.41	104.16	38	36.24
Haverhill, Mass.	[2] 49,232	99	20.1	13.25	5.23	18.48	259	7.84
Hazelton, Pa.	37,500	126	33.6	47.77	7.50	55.27	125	21.15
Highland Park, Mich.	81,700	366	44.8	29.08	3.42	32.50	215	15.86
Hoboken, N. J.	(1)	22						
Holyoke, Mass.	60,400	275	45.5	25.05	8.79	33.84	203	21.24
Houston, Tex.	[2] 164,954	4,536	275.0	161.09	4.58	165.66	14	91.55
Huntington, W. Va.	66,900	194	29.0	21.16	1.97	23.13	245	9.43
Indianapolis, Ind.	374,300	2,400	64.1	52.98	10.30	63.27	96	25.12
Irvington, N. J.	[2] 34,600	2,562	740.5	366.41	8.16	374.57	1	331.50
Jackson, Mich.	61,700	206	33.4	37.70	4.05	41.74	166	14.75
Jacksonville, Fla.	138,900	2,098	151.0	82.42	9.51	91.93	48	46.17
Jamestown, N. Y.	45,100	225	49.9	51.62	9.26	60.88	100	22.29
Jersey City, N. J.	321,500	1,287	40.0	38.92	4.17	43.08	165	14.47
Johnstown, Pa.	73,000	128	17.5	14.91	4.08	18.99	257	9.03
Joliet, Ill.	41,500	206	49.6	58.62	8.70	67.32	88	36.23
Joplin, Mo.	(1)	128						
Kalamazoo, Mich.	55,500	193	34.8	33.14	6.92	40.05	175	11.55
Kansas City, Kans.	117,500	387	32.9	12.44	1.07	13.50	273	6.14
Kansas City, Mo.	383,100	3,104	81.0	34.31	4.38	38.69	182	22.80
Kearny, N. J.	[2] 32,100	696	216.8	178.84	1.72	180.56	11	85.59
Kenosha, Wis.	54,600	303	55.5	76.40	5.44	81.84	57	29.91
Kingston, N. Y.	[2] 28,400	134	47.2	60.41	14.95	75.36	71	25.33
Knoxville, Tenn.	102,100	818	80.1	50.87	4.95	55.82	123	29.45
Kokomo, Ind.	39,100	45	11.5	10.32	1.95	12.28	275	4.18
Lakewood, Ohio	62,200	582	93.6	54.48	2.06	56.53	121	46.44
Lancaster, Pa.	57,700	247	42.8	41.27	10.80	52.08	135	23.58
Lansing, Mich.	75,600	420	55.6	93.63	3.33	96.96	44	23.75
Lawrence, Mass.	[2] 93,500	43	4.6	7.90	1.86	9.77	278	2.19
Lebanon, Pa.	[2] 25,300	32	12.6	17.06	6.84	23.89	240	7.57
Lewiston, Me.	36,100	43	11.9	12.58	.42	12.99	274	3.75
Lexington, Ky.	48,100	160	33.3	43.90	4.97	48.88	145	20.20
Lima, Ohio	48,700	35	7.2	9.90	4.62	14.52	268	3.13
Lincoln, Nebr.	69,900	388	55.5	60.32	2.61	62.93	97	27.03
Little Rock, Ark.	77,500	514	66.3	31.98	6.65	38.63	184	20.81
Long Beach, Calif.	104,200	1,479	141.9	123.79	7.10	130.90	27	42.90
Lorain, Ohio	44,000	237	53.9	27.35	2.21	29.56	227	18.44
Los Angeles, Calif.	(1)	20,801						

[1] Data not collected.

[2] Estimate as of July 1, 1925.

TABLE 5.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND

City and State	Expenditure for new buildings, 1927	Expenditure for repairs and additions, 1927	Total expenditures		Expenditure for new housekeeping dwellings only, 1927
			1927	1926	
Louisville, Ky	$21,641,640	$1,698,970	$23,340,610	$20,252,470	$9,452,570
Lowell, Mass	618,960	352,155	971,115	1,577,635	340,500
Lynchburg, Va	1,289,194	239,535	1,528,729	1,086,782	364,523
Lynn, Mass	3,056,139	821,636	3,877,775	4,612,145	1,986,500
McKeesport, Pa	1,848,280	507,839	2,356,119	2,524,665	1,512,523
Macon, Ga	2,544,812	341,304	2,886,116	1,739,139	1,237,065
Madison, Wis	4,077,535	384,278	4,461,813	5,103,437	2,538,600
Malden, Mass	3,193,586	606,507	3,800,093	3,611,356	2,030,525
Manchester, N. H	1,595,408	344,666	1,940,074	1,372,990	724,825
Mansfield, Ohio	1,556,940	222,615	1,779,555	2,932,699	732,800
Marion, Ind	488,140	33,420	521,560	(4)	150,840
Marion, Ohio	516,615	41,178	557,793	336,115	376,650
Medford, Mass	4,036,251	334,261	4,370,512	5,758,680	3,273,900
Memphis, Tenn	10,858,650	1,544,270	12,402,920	15,332,010	5,865,775
Meriden, Conn	1,172,713	143,464	1,316,177	1,236,852	818,350
Miami, Fla	8,259,008	1,281,929	9,540,138	35,242,615	1,499,256
Milwaukee, Wis	34,012,350	3,735,545	37,747,895	33,813,864	18,136,632
Minneapolis, Minn	19,489,060	2,940,560	22,429,620	20,609,340	8,519,200
Mobile, Ala	1,942,628	203,613	2,146,241	1,815,809	960,500
Moline, Ill	981,013	188,997	1,170,010	1,386,062	735,125
Montclair, N. J	4,714,631	731,533	5,446,164	6,969,063	3,622,107
Montgomery, Ala	1,777,100	754,247	2,531,347	1,626,000	820,000
Mount Vernon, N. Y	15,616,482	1,158,970	16,775,452	24,827,256	11,838,300
Muncie, Ind	2,696,831	341,982	3,038,813	1,817,584	1,120,296
Muskegon, Mich	878,937	199,731	1,078,668	1,213,027	334,350
Muskogee, Okla	799,247	43,320	842,567	388,654	224,500
Nashville, Tenn	6,460,410	617,663	7,078,073	5,242,709	1,773,650
Newark, N. J	47,045,152	4,406,478	51,451,630	41,197,877	26,081,407
Newark, Ohio	622,331	31,491	653,822	375,475	220,500
New Bedford, Mass	1,627,817	538,810	2,166,627	2,269,050	858,600
New Britain, Conn	3,442,765	661,119	4,103,884	5,788,938	2,184,000
New Brunswick, N. J	2,157,150	681,916	2,839,066	2,628,781	744,700
Newburgh, N. Y	1,209,030	308,621	1,517,651	3,491,465	533,140
New Castle, Pa	2,727,785	309,710	3,037,495	2,304,105	989,850
New Haven, Conn	10,770,502	970,877	11,741,379	19,467,325	1,697,000
New London, Conn	1,422,125	379,590	1,801,715	1,285,565	1,045,450
New Orleans, La	13,834,595	2,062,180	15,896,775	18,586,444	6,124,302
Newport, Ky	400,245	38,980	439,225	555,500	182,700
Newport, R. I	793,940	112,390	906,330	548,749	394,000
Newport News, Va	447,938	100,077	548,015	387,749	191,336
New Rochelle, N. Y	9,044,519	691,095	9,735,614	8,153,719	8,036,990
Newton, Mass	9,241,116	897,490	10,138,606	8,393,954	6,488,125
New York, N. Y	819,883,632	60,449,823	880,333,455	1,039,670,572	509,072,130
Niagara Falls, N. Y	3,840,989	950,491	4,791,480	4,244,017	2,023,108
Norfolk, Va	2,766,114	580,712	3,346,826	2,771,663	1,796,400
Norristown, Pa	1,227,112	598,989	1,826,101	1,346,289	348,400
Norwalk, Conn	3,200,790	391,219	3,592,009	3,054,352	1,978,930
Oakland, Calif	18,279,238	2,239,179	20,518,417	27,728,355	8,498,626
Oak Park, Ill	8,811,831	268,845	9,080,676	6,469,914	6,258,600
Ogden, Utah	1,048,510	449,750	1,498,260	1,438,050	842,050
Oklahoma City, Okla	12,034,263	648,030	12,682,293	7,723,434	6,070,045
Okmulgee, Okla	229,325	32,825	262,150	(4)	39,900
Omaha, Nebr	3,816,245	750,973	4,567,218	9,927,853	2,126,795
Orange, N. J	4,818,326	763,197	5,581,523	3,483,802	3,791,550
Oshkosh, Wis	1,431,344	62,732	1,494,076	2,176,014	480,839
Ottumwa, Iowa	520,500	59,400	579,900	799,640	248,750
Paducah, Ky	332,000	24,000	356,000	9,188,495	290,000
Pasadena, Calif	7,766,007	1,199,713	8,965,720	9,052,423	3,975,508
Passaic, N. J	4,110,944	1,492,504	5,603,448	3,336,883	2,221,470
Paterson, N. J	5,369,443	1,000,474	6,369,917	7,462,658	3,700,216
Pawtucket, R. I	3,136,940	449,825	3,586,765	3,724,311	2,377,750
Peoria, Ill	2,936,110	473,465	3,409,575	5,685,410	1,825,150
Perth Amboy, N. J	1,324,561	347,311	1,671,872	1,311,365	876,833
Petersburg, Va	164,377	115,089	279,466	281,600	155,080
Philadelphia, Pa	103,087,225	14,503,425	117,590,650	140,093,075	54,612,375
Phoenix, Ariz	5,345,201	299,923	5,645,124	2,634,323	1,696,580
Pittsburgh, Pa	29,256,737	7,854,595	37,111,332	43,790,103	15,432,851
Pittsfield, Mass	1,107,780	542,910	1,650,690	1,933,200	657,700
Plainfield, N. J	4,457,838	588,173	5,046,011	4,888,780	3,010,065
Pontiac, Mich	17,234,295	324,001	17,558,296	5,485,297	4,415,556
Port Arthur, Tex	1,524,644	206,736	1,731,380	877,500	1,075,654
Port Huron, Mich	488,215	350,850	839,065	499,705	346,600

[1] Not estimated by Census Bureau. [2] Estimate as of July 1, 1926. [3] State census, Jan. 1, 1925.

FOR REPAIRS, AND FAMILIES PROVIDED FOR, IN 302 CITIES IN 1927—Continued

City and State	Estimated population July 1, 1927	Families provided for		Per capita expenditure, 1927				Per capita expenditure for housekeeping dwellings only, 1927
		Number	Ratio per 10,000	For new buildings	For repairs and additions	Total	Rank of city	
Louisville, Ky	320,100	1,574	49.2	$67.61	$5.31	$72.92	74	$29.53
Lowell, Mass	[3] 110,296	79	7.2	5.61	3.19	8.80	279	3.09
Lynchburg, Va	38,600	89	23.1	33.40	6.21	39.60	177	9.44
Lynn, Mass	104,800	528	50.4	29.16	7.84	37.00	190	18.96
McKeesport, Pa	49,900	246	49.3	37.04	10.18	47.22	153	30.31
Macon, Ga	60,100	352	58.6	42.34	5.68	48.02	149	20.58
Madison, Wis	48,800	489	100.2	83.56	7.87	91.43	49	52.02
Malden, Mass	52,900	415	78.4	60.37	11.47	71.84	77	38.38
Manchester, N. H	84,800	165	19.5	18.81	4.06	22.88	246	8.55
Mansfield, Ohio	[2] 32,500	157	48.3	47.91	6.85	54.76	126	22.55
Marion, Ind	(1)	77						
Marion, Ohio	[2] 33,400	128	38.3	15.47	1.23	16.70	263	11.28
Medford, Mass	51,300	628	122.4	78.68	6.52	85.20	53	63.82
Memphis, Tenn	178,900	1,865	104.2	60.70	8.63	69.33	81	32.79
Meriden, Conn	36,800	211	57.3	31.87	3.90	35.77	196	22.24
Miami, Fla	140,000	698	49.9	58.99	9.16	68.14	84	10.71
Milwaukee, Wis	536,400	4,252	79.3	63.41	6.96	70.37	80	33.81
Minneapolis, Minn	447,700	2,189	48.9	43.53	6.57	50.10	140	19.03
Mobile, Ala	67,700	387	57.2	28.69	3.01	31.70	219	14.19
Moline, Ill	35,100	158	45.0	27.95	5.38	33.33	208	20.94
Montclair, N. J	[3] 33,700	334	99.1	139.90	21.71	161.61	17	107.48
Montgomery, Ala	47,600	393	82.6	37.33	15.85	53.18	132	17.23
Mount Vernon, N. Y	53,300	2,211	414.8	292.99	21.74	314.74	5	222.11
Muncie, Ind	45,800	317	69.2	58.88	7.47	66.35	90	24.46
Muskegon, Mich	45,500	119	26.2	19.32	4.39	23.71	241	7.35
Muskogee, Okla	32,900	92	28.0	24.29	1.32	25.61	238	6.82
Nashville, Tenn	137,800	654	47.5	46.88	4.48	51.36	136	12.87
Newark, N. J	466,700	5,144	110.2	100.80	9.44	110.25	35	55.88
Newark, Ohio	[2] 30,600	66	21.6	20.34	1.03	21.37	251	7.21
New Bedford, Mass	[3] 119,539	151	12.6	13.62	4.51	18.12	260	7.18
New Britain, Conn	71,200	537	75.4	48.35	9.29	57.64	115	30.67
New Brunswick, N. J	39,900	195	48.9	54.06	17.09	71.15	78	18.66
Newburgh, N. Y	30,400	90	29.6	39.77	10.15	49.92	141	17.54
New Castle, Pa	51,600	182	35.3	52.86	6.00	58.87	109	19.18
New Haven, Conn	184,900	497	26.9	58.25	5.25	63.50	95	9.18
New London, Conn	[2] 29,700	175	58.9	47.88	12.78	60.66	102	35.20
New Orleans, La	424,400	2,077	48.9	32.60	4.86	37.46	189	14.43
Newport, Ky	(1)	44						
Newport, R. I	[3] 27,757	37	13.3	28.60	4.05	32.65	213	14.19
Newport News, Va	51,700	55	10.6	8.66	1.94	10.60	276	3.70
New Rochelle, N. Y	47,300	1,049	221.8	191.22	14.61	205.83	7	169.92
Newton, Mass	56,000	734	131.1	165.02	16.03	181.05	10	115.86
New York, N. Y	5,970,800	105,519	176.7	137.32	10.12	147.44	22	85.26
Niagara Falls, N. Y	66,600	397	59.6	57.67	14.27	71.94	76	30.38
Norfolk, Va	179,200	496	27.7	15.44	3.24	18.68	258	10.02
Norristown, Pa	35,800	66	18.4	34.28	16.73	51.01	137	9.73
Norwalk, Conn	[2] 30,100	285	94.7	106.34	13.00	119.34	30	65.75
Oakland, Calif	267,300	2,694	100.8	68.38	8.38	76.76	68	31.79
Oak Park, Ill	55,600	918	165.1	158.49	4.84	163.32	15	112.56
Ogden, Utah	38,300	200	52.2	27.38	11.74	39.12	181	21.99
Oklahoma City, Okla	[4] 104,080	1,752	168.3	115.63	6.23	121.85	28	58.32
Okmulgee, Okla	(1)	16						
Omaha, Nebr	219,200	477	21.8	17.41	3.43	20.84	254	9.70
Orange, N. J	36,100	722	200.0	133.47	21.14	154.61	20	105.03
Oshkosh, Wis	33,200	162	48.8	43.11	1.89	45.00	159	14.48
Ottumwa, Iowa	[2] 27,400	38	13.9	19.00	2.17	21.16	252	9.08
Paducah, Ky	[2] 26,100	136	52.1	12.72	.92	13.64	272	11.11
Pasadena, Calif	60,500	790	130.6	128.36	19.83	148.19	21	65.71
Passaic, N. J	70,800	467	66.0	58.06	21.08	79.14	64	31.38
Paterson, N. J	143,800	1,167	81.2	37.34	6.96	44.30	163	25.73
Pawtucket, R. I	72,100	581	80.6	43.51	6.24	49.75	142	32.98
Peoria, Ill	83,500	349	41.8	35.16	5.67	40.83	170	21.86
Perth Amboy, N. J	49,100	192	39.1	26.98	7.07	34.05	202	17.86
Petersburg, Va	37,100	44	11.9	4.43	3.10	7.53	282	4.18
Philadelphia, Pa	2,035,900	12,197	59.9	50.63	7.12	57.76	113	26.82
Phoenix, Ariz	[2] 42,100	614	145.8	126.96	7.12	134.09	25	40.30
Pittsburgh, Pa	665,500	2,588	38.9	43.96	11.80	55.76	124	23.19
Pittsfield, Mass	49,100	118	24.0	22.56	11.06	33.62	205	13.40
Plainfield, N. J	[2] 32,500	507	156.0	137.16	18.10	155.26	18	92.62
Pontiac, Mich	54,000	1,069	198.0	319.15	6.00	325.15	4	81.77
Port Arthur, Tex	[3] 33,000	508	153.9	46.20	6.26	52.47	134	32.60
Port Huron, Mich	[3] 30,700	104	33.9	15.90	11.43	27.33	230	11.29

[1] Data not collected.

[2] Estimate as of July 1, 1924.

TABLE 5.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND

City and State	Expenditure for new buildings, 1927	Expenditure for repairs and additions, 1927	Total expenditures		Expenditure for new housekeeping dwellings only, 1927
			1927	1926	
Portland, Me	$1,715,012	$611,771	$2,326,783	$4,222,053	$990,050
Portland, Oreg	26,004,805	2,968,650	28,973,455	32,588,975	12,654,360
Portsmouth, Ohio	1,437,935	147,072	1,585,007	1,952,701	737,945
Portsmouth, Va	310,807	152,578	463,385	557,399	235,425
Poughkeepsie, N. Y	911,027	236,640	1,147,667	2,196,032	518,400
Providence, R. I	19,269,904	3,862,915	23,132,819	23,188,000	7,204,400
Pueblo, Colo	1,341,337	284,145	1,625,382	1,246,041	1,016,675
Quincy, Ill	1,002,878	70,443	1,073,321	1,327.618	774,050
Quincy, Mass	4,804,962	426,910	5,231,872	6,230,206	3,684,300
Racine, Wis	5,933,903	457,268	6,391,171	4,066,925	2,863,853
Reading, Pa	3,676,125	937,942	4,614,067	5,266,725	1,407,700
Revere, Mass	1,383,695	218,425	1,602,120	1,663,297	985,400
Richmond, Ind	1,622,764	203,375	1,826,139	1,345,553	837,870
Richmond, Va	13,398,171	1,818,032	15,216,203	10,024,874	7,917,843
Roanoke, Va	2,402,573	181,423	2,583,996	4,568,044	1,664,511
Rochester, N. Y	20,334,932	2,254,486	22,589,418	21,636,691	10,207,245
Rockford, Ill	5,909,617	643,806	6,553,423	5,539,334	3,173,200
Rock Island, Ill	1,600,355	399,535	1,999,890	1,184,252	740,275
Sacramento, Calif	7,862,792	951,419	8,814,211	7,699,373	3,618,858
Saginaw, Mich	3,298,552	312,231	3,610,783	3,084,715	955,800
St. Joseph, Mo	624,126	144,772	768,898	1,342,270	261,734
St. Louis, Mo	35,090,145	6,327,076	41,417,221	42,738,760	16,115,335
St. Paul, Minn	8,520,567	1,550,649	10,071,216	15,591,288	5,786,574
St. Petersburg, Fla	2,352,000	555,500	2,907,500	15,002,350	1,155,500
Salem, Mass	2,366,225	360,855	2,727,080	2,110,175	1,334,000
Salt Lake City, Utah	4,265,025	590,820	4,855,845	5,627,394	3,244,560
San Antonio, Tex	11,349,149	841,131	12,190,280	12,072,099	6,446,719
San Diego, Calif	12,670,164	1,206,989	13,877,153	19,830,938	8,097,820
San Francisco, Calif	41,748,676	4,700,000	46,448,676	57,153,948	28,964,544
San Jose, Calif	3,120,150	434,280	3,554,430	4,379,035	1,273,970
Savannah, Ga	2,021,130	158,920	2,180,050	2,930,711	1,434,000
Schenectady, N. Y	3,699,395	618,875	4,318,270	4,009,975	2,114,150
Scranton, Pa	5,030,065	677,050	5,707,115	3,141,047	1,176,800
Seattle, Wash	25,737,240	3,332,840	29,070,080	34,217,700	15,754,625
Sheboygan, Wis	1,703,622	468,318	2,171,940	2,717,945	1,037,200
Shreveport, La	3,220,498	725,872	3,946,370	5,356,803	1,456,376
Sioux City, Iowa	1,682,400	185,175	1,867,575	4,265,556	833,500
Sioux Falls, S. Dak	1,906,505	136,000	2,042,505	1,931,614	752,000
Somerville, Mass	2,965,423	420,427	3,385,850	5,065,991	1,681,420
South Bend, Ind	4,663,378	225,282	4,888,660	9,752,934	2,725,500
Spokane, Wash	3,091,282	565,218	3,656,500	4,190,973	2,045,950
Springfield, Ill	3,390,083	380,220	3,770,303	4,251,341	1,649,910
Springfield, Mass	7,198,764	1,707,055	8,905,819	8,733,706	4,367,650
Springfield, Ohio	1,533,820	160,107	1,693,927	1,446,818	893,750
Stamford, Conn	5,425,071	617,645	6,042,716	4,445,183	3,136,100
Steubenville, Ohio	1,801,710	54,725	1,856,435	1,363,300	951,600
Stockton, Calif	2,528,413	274,934	2,803,347	2,731,134	1,478,600
Superior, Wis	1,107,536	169,483	1,277,019	2,135,529	280,750
Syracuse, N. Y	19,918,302	2,072,069	21,990,371	14,274,136	9,542,300
Tacoma, Wash	4,188,913	575,815	4,764,728	11,087,867	2,157,590
Tampa, Fla	5,324,185	821,016	6,145,201	15,480,241	1,921,895
Taunton, Mass	788,198	267,801	1,055,999	871,825	347,405
Terre Haute, Ind	903,872	308,899	1,212,771	2,063,971	555,025
Toledo, Ohio	13,209,215	2,304,495	15,513,710	13,046,365	7,205,375
Topeka, Kans	1,916,540	305,656	2,222,196	3,578,865	1,169,900
Trenton, N. J	3,742,729	796,903	4,539,632	4,931.251	1,775,650
Troy, N. Y	2,708,019	498,038	3,206,057	2,601,832	664,750
Tucson, Ariz	2,050,875	271,675	2,322.550	1,796.236	1,653,275
Tulsa, Okla	14,317,221	474,633	14,791,854	7,229,869	5,756,775
Union City, N. J	1,716,000	1,693,526	3,409.526	1,932,736	1,045,500
Utica, N. Y	2,899,995	481,110	3,381,105	5,531,655	1,545,600
Vallejo, Calif	423,679	69,219	492,898	(1)	106,950
Waco, Tex	1,321,456	252,185	1,573,641	1,094,525	558,575
Waltham, Mass	2,046,795	171,130	2,217,925	2,812,605	1,406,250
Warren, Ohio	1,333,289	92,185	1,425,474	2,384,200	1,121,950
Washington, D. C	34,735,831	4,527,646	39,263,477	64.970,448	21,963,395
Waterbury, Conn	4,787,288	228,350	5,015.638	5,252,265	2,849,500
Waterloo, Iowa	931,651	220,330	1,151,971	1,383,910	526,900

[1] Not estimated by Census Bureau. [2] Estimate as of July 1, 1926.

FOR REPAIRS, AND FAMILIES PROVIDED FOR, IN 302 CITIES IN 1927—Continued

City and State	Estimated population July 1, 1927	Families provided for		Per capita expenditure, 1927				Per capita expenditure for housekeeping dwellings only, 1927
		Number	Ratio per 10,000	For new buildings	For repairs and additions	Total	Rank of city	
Portland, Me	77,500	216	27.9	$22.13	$7.89	$30.02	226	$12.77
Portland, Oreg	(1)	3,166						
Portsmouth, Ohio	40,500	224	55.3	35.50	3.63	39.14	179	18.22
Portsmouth, Va	60,700	79	13.0	5.12	2.51	7.63	281	3.88
Poughkeepsie, N. Y	35,900	87	24.2	25.38	6.59	31.97	217	14.44
Providence, R. I	280,600	1,188	42.3	68.67	13.77	82.44	56	25.67
Pueblo, Colo	44,100	401	90.9	30.42	6.44	36.86	191	23.05
Quincy, Ill	39,500	181	45.8	25.39	1.78	27.17	231	19.60
Quincy, Mass	65,300	926	141.8	73.58	6.54	80.12	60	56.42
Racine, Wis	71,300	609	85.4	83.22	6.41	89.64	50	40.17
Reading, Pa	114,500	233	20.3	32.11	8.19	40.30	172	12.29
Revere, Mass	35,200	241	68.5	39.31	6.21	45.51	157	27.99
Richmond, Ind	[3] 31,000	228	73.5	52.35	6.56	58.91	108	27.03
Richmond, Va	191,800	1,774	92.5	69.85	9.48	79.33	63	41.28
Roanoke, Va	63,200	395	62.5	38.02	2.87	40.89	169	26.34
Rochester, N. Y	324,500	2,448	75.4	62.67	6.95	69.61	82	31.46
Rockford, Ill	80,900	926	114.5	73.05	7.96	81.01	58	39.22
Rock Island, Ill	41,900	208	49.6	38.19	9.54	47.73	150	17.67
Sacramento, Calif	74,600	959	128.6	105.40	12.75	118.15	32	48.51
Saginaw, Mich	74,400	347	46.6	44.34	4.20	48.53	147	12.85
St. Joseph, Mo	78,500	107	13.6	7.95	1.84	9.79	277	3.33
St. Louis, Mo	839,200	5,463	65.1	41.81	7.54	49.35	143	19.20
St. Paul, Minn	250,100	1,148	45.9	34.07	6.20	40.27	173	23.14
St. Petersburg, Fla	48,500	442	91.1	48.49	11.45	59.95	106	23.82
Salem, Mass	42,900	218	50.8	55.16	8.41	63.57	94	31.10
Salt Lake City, Utah	135,700	850	62.6	31.43	4.35	35.78	195	23.91
San Antonio, Tex	211,400	2,171	102.7	53.69	3.98	57.66	114	30.50
San Diego, Calif	115,300	2,613	226.6	109.89	10.47	120.36	29	70.23
San Francisco, Calif	576,000	8,674	150.6	72.48	8.16	80.64	59	50.29
San Jose, Calif	44,800	385	85.9	69.65	9.69	79.34	62	28.44
Savannah, Ga	99,700	401	40.2	20.27	1.59	21.87	250	14.38
Schenectady, N. Y	93,200	349	37.4	39.69	6.64	46.33	155	22.68
Scranton, Pa	143,900	280	19.5	34.96	4.71	39.66	176	8.18
Seattle, Wash	375,300	4,505	120.0	68.58	8.88	77.46	65	41.98
Sheboygan, Wis	[3] 34,000	204	60.0	50.11	13.77	63.88	93	30.51
Shreveport, La	78,000	198	25.4	41.29	9.31	50.59	139	18.67
Sioux City, Iowa	79,000	267	33.8	21.30	2.34	23.64	243	10.55
Sioux Falls, S. Dak	[3] 31,200	151	48.4	61.11	4.36	65.46	91	24.10
Somerville, Mass	101,600	399	39.3	29.19	4.14	33.33	209	16.55
South Bend, Ind	84,200	540	64.1	55.38	2.68	58.06	112	32.37
Spokane, Wash	109,000	595	54.6	28.36	5.19	33.55	206	18.77
Springfield, Ill	66,400	354	53.3	51.06	5.73	56.78	119	24.85
Springfield, Mass	147,400	1,240	84.1	48.84	11.58	60.42	103	29.63
Springfield, Ohio	71,600	285	39.8	21.42	2.24	23.66	242	12.48
Stamford, Conn	42,800	559	130.6	126.75	14.43	141.18	23	73.27
Steubenville, Ohio	[3] 32,600	171	52.5	55.27	1.68	56.95	118	29.19
Stockton, Calif	49,800	412	82.7	50.77	5.52	56.29	122	29.69
Superior, Wis	(1)	84						
Syracuse, N. Y	197,000	1,838	93.3	101.11	10.52	111.63	34	48.44
Tacoma, Wash	107,200	769	71.7	39.08	5.37	44.45	161	20.13
Tampa, Fla	107,800	826	76.6	49.39	7.62	57.01	117	17.83
Taunton, Mass	40,200	91	22.6	19.61	6.66	26.27	235	8.64
Terre Haute, Ind	72,700	184	25.3	12.43	4.25	16.68	264	7.63
Toledo, Ohio	305,400	1,749	57.3	43.25	7.55	50.80	138	23.59
Topeka, Kans	61,900	320	51.7	30.96	4.94	35.90	194	18.90
Trenton, N. J	136,700	316	23.1	27.38	5.83	33.21	210	12.99
Troy, N. Y	72,300	110	15.2	37.46	6.89	44.34	162	9.19
Tucson, Ariz	[3] 27,500	535	19.5	74.58	9.88	84.46	55	60.12
Tulsa, Okla	150,000	1,434	95.6	95.45	3.16	98.61	43	38.38
Union City, N. J	64,000	255	39.8	26.81	26.46	53.27	131	16.34
Utica, N. Y	103,400	259	25.0	28.05	4.65	32.70	212	14.95
Vallejo, Calif	(1)	26						
Waco, Tex	45,700	171	37.4	28.91	5.52	34.43	200	12.22
Waltham, Mass	36,400	285	78.3	56.23	4.70	60.93	99	38.63
Warren, Ohio	[3] 36,100	321	88.9	36.93	2.55	39.49	178	31.08
Washington, D. C	540,000	3,938	72.9	64.33	8.38	72.71	75	40.67
Waterbury, Conn	(1)	675						
Waterloo, Iowa	37,000	144	38.9	25.18	5.95	31.13	220	14.24

[3] State census, Jan. 1, 1925. [4] Data not collected.

TABLE 5.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND

City and State	Expenditure for new buildings, 1927	Expenditure for repairs and additions, 1927	Total expenditures		Expenditure for new housekeeping dwellings only, 1927
			1927	1926	
Watertown, Mass	$4,231,130	$50,100	$4,281,230	$5,767,640	$3,628,700
Watertown, N. Y	350,470	405,734	756,204	621,539	255,550
West New York, N. J	1,494,050	191,243	1,685,293	2,925,470	915,000
Wheeling, W. Va	2,489,351	524,780	3,014,131	1,821,213	945,678
White Plains, N. Y	9,461,316	664,476	10,125,792	14,151,943	7,281,750
Wichita, Kans	5,357,521	491,421	5,848,942	5,184,105	3,044,535
Wichita Falls, Tex	3,813,631	237,056	4,050,687	10,022,263	2,150,134
Wilkes-Barre, Pa	4,228,216	706,123	4,934,339	3,940,685	1,055,777
Wilkinsburg, Pa	1,817,990	114,400	1,932,390	3,100,326	976,400
Williamsport, Pa	2,311,165	421,530	2,732,695	(1)	842,650
Wilmington, Del	5,817,126	988,774	6,805,900	4,871,281	2,397,205
Wilmington, N. C	422,875	129,250	552,125	1,088,050	202,800
Winston-Salem, N. C	6,012,242	526,945	6,539,187	5,530,843	3,755,966
Woonsocket, R. I	1,014,254	345,925	1,360,179	3,338,621	591,600
Worcester, Mass	6,781,879	2,032,790	8,814,669	12,985,014	4,252,150
Yonkers, N. Y	31,396,529	1,189,359	32,585,888	25,644,124	25,913,285
York, Pa	1,133,492	455,362	1,588,854	1,242,000	380,500
Youngstown, Ohio	8,781,460	225,700	9,007,160	9,613,550	5,438,700
Zanesville, Ohio	989,962	31,138	1,021,100	986,427	446,206
Total	3,240,441,134	353,398,271	3,593,839,405	3,983,442,022	1,860,437,041

[1] Not estimated by Census Bureau.

[2] Estimate as of July 1, 1926.

FOR REPAIRS, AND FAMILIES PROVIDED FOR, IN 302 CITIES IN 1927—Continued

City and State	Estimated population July 1, 1927	Families provided for		Per capita expenditure, 1927				Per capita expenditure for housekeeping dwellings only, 1927
		Number	Ratio per 10,000	For new buildings	For repairs and additions	Total	Rank of city	
Watertown, Mass	[2] 26,400	759	287.5	$160.27	$1.90	$162.17	16	$137.45
Watertown, N. Y	33,400	50	15.0	10.49	12.15	22.64	247	7.65
West New York, N. J	[2] 41,000	283	69.0	36.44	4.66	41.10	168	22.32
Wheeling, W. Va	(1)	182						
White Plains, N. Y	[2] 28,700	1,204	419.5	329.66	23.15	352.82	2	253.72
Wichita, Kans	96,100	988	102.8	55.75	5.11	60.86	101	31.68
Wichita Falls, Tex	(1)	548						
Wilkes-Barre, Pa	90,900	230	25.3	46.52	7.77	54.28	128	11.61
Wilkinsburg, Pa	[2] 28,000	166	59.3	64.93	4.09	69.01	83	34.87
Williamsport, Pa	43,600	233	53.4	53.01	9.67	62.68	98	19.33
Wilmington, Del	126,400	366	29.0	46.02	7.82	53.84	130	18.97
Wilmington, N. C	38,400	68	17.7	11.01	3.37	14.38	269	5.28
Winston-Salem, N. C	77,100	923	119.7	77.98	6.83	84.81	54	48.72
Woonsocket, R. I	52,300	154	29.4	19.39	6.61	26.01	236	11.31
Worcester, Mass	195,500	795	40.7	34.69	10.40	45.09	158	21.75
Yonkers, N. Y	118,800	4,146	349.0	264.28	10.01	274.29	6	218.13
York, Pa	49,600	102	20.6	22.85	9.18	32.03	216	7.67
Youngstown, Ohio	169,400	1,148	67.8	51.84	1.33	53.17	133	32.11
Zanesville, Ohio	[2] 30,600	111	36.3	32.35	1.02	33.37	207	14.58
Total	43,919,581	418,878	95.4	73.78	8.05	81.83	------	42.36

[1] Data not collected.

TREND OF EMPLOYMENT

Employment in Selected Manufacturing Industries in March, 1928

EMPLOYMENT in manufacturing industries *increased* 0.7 per cent in March, 1928, as compared with February, 1928, and pay-roll totals *increased* 1.3 per cent. The trend of employment in March has been upward in five of the last six years, but the increase in March, 1928, is greater than in either 1927 or 1926.

With these increases the volume of employment in March, 1928, stood at a higher level than at any time since October, 1927, while pay-roll totals were greater than at any time since June, 1927, with the single exception of October, 1927, when they were at the same level as in March, 1928.

The Bureau of Labor Statistics' weighted index of employment for March, 1928, is 86.1, as compared with 85.5 for February, 1928, 84.2 for January, 1928, and 91.4 for March, 1927; the weighted index of pay-roll totals for March, 1928, is 91.2, as compared with 90.0 for February, 1928, 85.8 for January, 1928, and 97.7 for March, 1927. The monthly average for 1923 equals 100.

Employment and pay-roll totals in March, 1928, were 5.8 per cent and 6.7 per cent lower in the two items, respectively, than in March, 1927.

The data for March, 1928, were based on reports from 10,880 establishments in 54 of the chief manufacturing industries of the United States. These establishments in March had 3,023,122 employees, whose combined earnings in one week were $82,616,721.

Comparison of Employment and Pay-Roll Totals in February and March, 1928

THIRTY-FOUR of the fifty-four separate industries had more employees in March than in February and 36 industries reported increased pay-roll totals, the majority of the increases being of a seasonal character.

Fertilizer employees had increased 39 per cent in March, while employees in the following industries had increased from 3.1 per cent to 4.9 per cent each: Agricultural implements, cast-iron pipe, stamped ware, automobiles, ice cream, glass, and brick. Nearly all of these industries reported corresponding increases in pay-roll totals, and the following industries, with smaller increases in employment, also reported substantially increased pay-roll totals: Sugar refining, foundries and machine shops, machine tools, and sawmills. The iron and steel industry had gained about 2 per cent both in employment and in pay-roll totals.

The notable decreases in March were in the woolen goods, book and job printing, chewing tobacco, rubber boots, and shipbuilding industries.

The chemical group as a whole shows the greatest gains in March, due to the peak-season increases in the fertilizer industry; the stone-clay-glass group's large increases were due to seasonal prospects in building construction, as were a large share of the gains in the iron and steel and the lumber groups. The vehicle group owed its advance largely to the spurt in automobile factories.

The Pacific and East North Central geographic divisions reported the greatest improvement in employment in March, although all but two divisions showed this improvement in lesser degrees. The New England and the East South Central divisions each reported a falling off in employment.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN FEBRUARY AND MARCH, 1928

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		February, 1928	March, 1928		February, 1928	March, 1928	
Food and kindred products	**1,746**	**223,293**	**221,814**	(1)	**$5,746,330**	**$5,691,622**	(1)
Slaughtering and meat packing	192	88,028	86,134	−2.2	2,308,318	2,212,717	−4.1
Confectionery	314	34,601	33,841	−2.2	634,360	625,747	−1.4
Ice cream	233	8,776	9,165	+4.4	291,844	304,476	+4.3
Flour	330	15,458	15,496	+0.2	409,567	414,127	+1.1
Baking	662	67,043	67,602	+0.8	1,816,986	1,832,421	+0.8
Sugar refining, cane	15	9,387	9,576	+2.0	285,255	302,134	+5.9
Textiles and their products	**1,874**	**600,927**	**594,133**	(1)	**11,876,929**	**11,655,391**	(1)
Cotton goods	470	222,530	218,838	−1.7	3,405,517	3,313,762	−2.7
Hosiery and knit goods	246	81,433	80,746	−0.8	1,573,053	1,558,902	−0.9
Silk goods	187	56,871	57,479	+1.1	1,248,177	1,275,077	+2.2
Woolen and worsted goods	188	63,642	61,502	−3.4	1,432,732	1,335,116	−6.8
Carpets and rugs	30	24,305	24,210	−0.4	625,773	633,033	+1.2
Dyeing and finishing textiles	99	30,867	30,559	−1.0	757,678	758,497	+0.1
Clothing, men's	286	65,726	64,636	−1.7	1,615,768	1,545,836	−4.3
Shirts and collars	96	20,617	20,491	−0.6	334,591	333,768	−0.2
Clothing, women's	197	22,568	23,120	+2.4	592,496	602,587	+1.7
Millinery and lace goods	75	12,368	12,552	+1.5	291,144	298,813	+2.6
Iron and steel and their products	**1,794**	**629,147**	**639,225**	(1)	**19,134,845**	**19,546,091**	(1)
Iron and steel	200	258,060	262,853	+1.9	8,225,173	8,394,777	+2.1
Cast-iron pipe	41	11,925	12,368	+3.7	277,468	299,716	+8.0
Structural ironwork	164	24,066	23,860	−0.9	717,258	714,183	−0.4
Foundry and machine-shop products	966	224,786	228,296	+1.6	6,700,876	6,902,176	+3.0
Hardware	71	31,763	31,786	+0.1	825,260	807,642	−2.1
Machine tools	151	28,522	29,158	+2.2	908,777	948,870	+4.4
Steam fittings and steam and hot-water heating apparatus	106	34,135	34,698	+1.6	1,023,672	1,025,154	+0.1
Stoves	95	15,890	16,206	+2.0	456,361	453,573	−0.6
Lumber and its products	**1,150**	**202,742**	**205,805**	(1)	**4,467,105**	**4,579,454**	(1)
Lumber, sawmills	453	109,797	112,551	+2.5	2,199,870	2,307,407	+4.9
Lumber, millwork	269	30,566	30,667	+.3	718,739	734,929	+2.3
Furniture	428	62,379	62,587	+.3	1,548,496	1,537,118	−0.7
Leather and its products	**355**	**123,088**	**122,223**	(1)	**2,893,610**	**2,850,427**	(1)
Leather	131	28,994	28,784	−0.7	732,335	732,819	+0.1
Boots and shoes	224	94,094	93,439	−0.7	2,161,275	2,117,608	−2.0
Paper and printing	**920**	**181,547**	**179,885**	(1)	**5,936,550**	**5,940,104**	(1)
Paper and pulp	215	57,605	57,608	+(2)	1,560,216	1,561,778	+0.1
Paper boxes	184	18,773	18,749	−0.1	418,717	427,823	+2.2
Printing, book and job	312	55,583	53,878	−3.1	1,924,617	1,911,555	−0.7
Printing, newspapers	209	49,586	49,650	+0.1	2,033,000	2,038,948	+0.3

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN FEBRUARY AND MARCH, 1928—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		February, 1928	March, 1928		February, 1928	March, 1928	
Chemicals and allied products	**363**	**89,521**	**94,583**	(1)	**$2,586,959**	**$2,664,474**	(1)
Chemicals	124	31,971	31,844	−0.4	886,010	892,899	+0.8
Fertilizers	182	13,103	18,215	+39.0	236,660	308,593	+30.4
Petroleum refining	57	44,447	44,524	+0.2	1,464,289	1,462,982	−0.1
Stone, clay, and glass products	**662**	**100,838**	**104,310**	(1)	**2,631,436**	**2,722,018**	(1)
Cement	102	22,029	22,644	+2.8	625,729	643,890	+2.9
Brick, tile, and terra cotta	380	28,004	29,376	+4.9	693,331	733,547	+5.8
Pottery	68	14,358	14,186	−1.2	377,573	376,617	−0.3
Glass	112	36,447	38,104	+4.5	934,803	967,964	+3.5
Metal products, other than iron and steel	**223**	**50,013**	**51,004**	(1)	**1,372,954**	**1,389,732**	(1)
Stamped and enameled ware	68	18,408	19,142	+4.0	469,207	480,059	+2.3
Brass, bronze, and copper products	155	31,605	31,862	+0.8	903,747	909,673	+0.7
Tobacco products	**161**	**43,058**	**43,286**	(1)	**713,077**	**717,331**	(1)
Chewing and smoking tobacco and snuff	29	8,806	8,485	−3.6	141,462	130,212	−8.0
Cigars and cigarettes	132	34,252	34,801	+1.6	571,615	587,119	+2.7
Vehicles for land transportation	**1,220**	**502,632**	**519,139**	(1)	**16,667,036**	**17,468,672**	(1)
Automobiles	208	346,230	361,063	+4.3	11,976,670	12,644,713	+5.6
Carriages and wagons	59	1,526	1,563	+2.4	34,113	34,698	+1.7
Car building and repairing, electric-railroad	391	25,895	25,913	+0.1	790,516	817,054	+3.4
Car building and repairing, steam-railroad	562	128,981	130,600	+1.3	3,865,737	3,972,207	+2.8
Miscellaneous industries	**412**	**248,093**	**247,715**	(1)	**7,312,584**	**7,391,405**	(1)
Agricultural implements	94	28,653	29,538	+3.1	853,702	892,994	+4.6
Electrical machinery, apparatus, and supplies	175	116,375	117,215	+0.7	3,409,260	3,477,361	+2.0
Pianos and organs	40	6,609	6,417	−2.9	182,979	187,650	+2.6
Rubber boots and shoes	12	19,787	18,075	−8.7	476,790	431,485	−9.5
Automobile tires	53	52,762	53,327	+1.1	1,713,102	1,733,630	+1.2
Shipbuilding	38	23,907	23,143	−3.2	676,751	668,285	−1.3
All industries	**10,880**	**2,994,899**	**3,023,122**	(1)	**81,339,415**	**82,616,721**	(1)

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION							
New England	1,393	400,937	396,010	−1.2	$9,741,190	$9,596,254	−1.5
Middle Atlantic	2,510	803,900	805,478	+0.2	22,984,886	23,185,631	+0.9
East North Central	2,929	1,019,331	1,042,471	+2.3	31,468,288	32,408,135	+3.0
West North Central	1,017	156,492	157,287	+0.5	3,987,876	4,054,004	+1.7
South Atlantic	1,182	283,249	287,551	+1.5	5,419,569	5,501,283	+1.5
East South Central	540	114,937	114,642	−0.3	2,197,816	2,187,554	−0.5
West South Central	446	82,190	82,320	+0.2	1,772,902	1,764,193	−0.5
Mountain	187	25,441	25,668	+0.9	704,309	726,942	+3.2
Pacific	676	108,422	111,695	+3.0	3,062,579	3,192,725	+4.2
All divisions	**10,880**	**2,994,899**	**3,023,122**	(1)	**81,339,415**	**82,616,721**	(1)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishment reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] Less than one-tenth of 1 per cent.

TABLE 2.—PER CENTS OF CHANGE, FEBRUARY TO MARCH, 1928—12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, February, 1928, to March, 1928		Group	Per cent of change, February, 1928, to March, 1928	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	−0.6	−1.0	Metal products, other than iron and steel	+1.8	+1.1
Textiles and their products	−0.8	−1.4	Tobacco products	+1.0	+1.1
Iron and steel and their products	+1.6	+2.3	Vehicles for land transportation	+2.8	+4.2
Lumber and its products	+1.7	+3.3	Miscellaneous industries	−1.0	+0.1
Leather and its products	−0.7	−1.3			
Paper and printing	−0.9	+0.1	**All industries**	+0.7	+1.3
Chemicals and allied products	+6.9	+4.4			
Stone, clay, and glass products	+3.6	+3.5			

Comparison of Employment and Pay-Roll Totals in March, 1928, with March, 1927

THE level of employment in manufacturing industries, in March, 1928, was 5.8 per cent lower than in March, 1927, and pay-roll totals were 6.7 per cent lower.

Comparing conditions in March, 1928, and in March, 1927, the food group alone of the 12 groups of industries shows gains both in employment and in pay-roll totals, although the vehicle group shows a small gain in the second item. The group of miscellaneous industries shows *very* large decreases—15.3 per cent and 17.3 per cent—and the iron and steel, stone-clay-glass, metal other than iron and steel, lumber, leather, and chemical groups all show large decreases—ranging from 4.7 per cent to 9.8 per cent—in the two items.

The notable increases in employment in separate industries over this 12-month period were in the fertilizer, agricultural implement, automobile, rubber tire, slaughtering and meat-packing, and flour industries.

The pronounced decreases in employment between March, 1927, and March, 1928, were in the shipbuilding, petroleum refining, piano, cast-iron pipe, brick, stove, steam fitting, foundry and machine shop, cement, steam-railroad car building and repairing, and woolen goods industries.

The East North Central geographic division again showed an increase in employment over the 12-month period, but the New England, Middle Atlantic, and West South Central divisions each had dropped 8 per cent or over of their employees, while the remaining five divisions showed smaller decreases.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, MARCH, 1928 WITH MARCH, 1927

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change, March, 1928, compared with March, 1927	
	Number on pay roll	Amount of pay roll
Food and kindred products	+0.2	+2.0
Slaughtering and meat packing	+3.5	+6.0
Confectionery	−2.0	−3.5
Ice cream	−4.4	−4.0
Flour	+2.6	+5.9
Baking	−0.9	−0.8
Sugar refining, cane	−6.8	+1.2
Textiles and their products	−3.7	−7.6
Cotton goods	−5.8	−14.5
Hosiery and knit goods	−2.0	−4.5
Silk goods	+0.5	+1.8
Woolen and worsted goods	−8.2	−10.7
Carpets and rugs	−1.5	−7.2
Dyeing and finishing textiles	+0.1	−1.2
Clothing, men's	−4.6	−9.3
Shirts and collars	+1.1	−2.5
Clothing, women's	−3.9	−5.8
Millinery and lace goods	+0.1	−0.5
Iron and steel and their products	−8.3	−8.1
Iron and steel	−6.3	−5.8
Cast-iron pipe	−13.9	−14.9
Structural ironwork	−5.1	−3.5
Foundry and machine-shop products	−9.7	−10.7
Hardware	−7.4	−9.3
Machine tools	−6.3	−0.9
Steam fittings and steam and hot-water heating apparatus	−10.2	−11.7
Stoves	−11.2	−14.8
Lumber and its products	−5.5	−5.5
Lumber, sawmills	−5.8	−5.0
Lumber, millwork	−6.9	−6.0
Furniture	−3.9	−6.6
Leather and its products	−4.9	−5.6
Leather	−2.7	−1.2
Boots and shoes	−5.7	−7.5
Paper and printing	−1.9	−1.0
Paper and pulp	−4.1	−3.6
Paper boxes	−1.8	+0.5
Paper and printing—Con.		
Printing, book and job	−3.1	−2.7
Printing, newspapers	+0.9	+2.4
Chemicals and allied products	−4.7	−6.8
Chemicals	−1.7	−1.4
Fertilizers	+12.8	+10.1
Petroleum refining	−18.5	−19.2
Stone, clay, and glass products	−8.2	−9.8
Cement	−9.7	−11.6
Brick, tile, and terra cotta	−11.9	−16.9
Pottery	−4.8	−4.5
Glass	−5.9	−5.8
Metal products, other than iron and steel	−6.6	−7.4
Stamped and enameled ware	−4.7	−5.8
Brass, bronze, and copper products	−7.3	−7.9
Tobacco products	−1.6	−2.3
Chewing and smoking tobacco and snuff	−2.1	−3.8
Cigars and cigarettes	−1.5	−2.1
Vehicles for land transportation	−1.5	+0.8
Automobiles	+6.4	+10.1
Carriages and wagons	−7.7	−8.7
Car building and repairing, electric-railroad	−2.6	−0.6
Car building and repairing, steam-railroad	−8.7	−7.6
Miscellaneous industries	−15.3	−17.3
Agricultural implements	+9.1	+15.8
Electrical machinery, apparatus, and supplies	−5.3	−5.2
Pianos and organs	−15.2	−15.5
Rubber boots and shoes	−3.1	−5.7
Automobile tires	+4.4	+5.3
Shipbuilding	−31.4	−32.8
All industries	−5.8	−6.7

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION		
New England	−8.5	−11.0
Middle Atlantic	−8.6	−9.2
East North Central	+1.1	+2.4
West North Central	−0.6	+0.9
South Atlantic	−2.9	−4.4
East South Central	−3.8	−6.3
West South Central	−8.0	−7.2
Mountain	−3.3	−3.6
Pacific	−3.3	−2.4
All divisions	−5.8	−6.7

Per Capita Earnings

PER CAPITA earnings in March, 1928, for the 54 industries combined, were 0.6 per cent higher than in February, 1928, and 0.9 per cent lower than in March, 1927.

Increases in March, 1928, as compared with February, 1928, are shown in 34 of the 54 industries, the notable ones being in the piano, cast-iron pipe, cane-sugar refining, and electric-railroad car building and repairing. As in the previous month the outstanding decrease—6.2 per cent in this instance—was in the fertilizer industry and due to the employment of a large number of laborers for the shipping season.

Employees in 23 industries were averaging greater earnings in March, 1928, than in March, 1927, the cane-sugar refining industry leading with an increase of 8.6 per cent, and followed by agricultural implements, with an increase of 6 per cent, and machine tools, with an increase of 5.6 per cent. The notable decreases in per capita earnings in this comparison over a period of 12 months were 9.3 per cent in cotton goods, 6 per cent in brick, 5.7 per cent in carpets, and 5.1 per cent in men's clothing.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, MARCH, 1928, WITH FEBRUARY, 1928, AND WITH MARCH, 1927

Industry	Per cent of change March, 1928, compared with—		Industry	Per cent of change March, 1928, compared with—	
	February, 1928	March, 1927		February, 1928	March, 1927
Pianos and organs	+5.6	−0.4	Shirts and collars	+0.4	−3.3
Cast-iron pipe	+4.1	−1.1	Structural ironwork	+0.4	+1.7
Sugar refining, cane	+3.8	+8.6	Iron and steel	+0.2	+0.8
Car building and repairing, electric-railroad	+3.3	+2.1	Printing, newspapers	+0.2	+1.7
Printing, book and job	+2.5	+0.6	Automobile tires	+0.1	+1.1
Lumber, sawmills	+2.3	+0.7	Cement	+0.1	−1.9
Paper boxes	+2.3	+2.2	Paper and pulp	+0.1	+0.4
Machine tools	+2.1	+5.6	Baking	+(1)	+0.2
Shipbuilding	+2.0	−1.8	Hosiery and knit goods	−0.1	−2.6
Lumber, millwork	+1.9	+0.8	Ice cream	−0.1	+0.6
Carpets and rugs	+1.6	−5.7	Brass, bronze, and copper products	−0.2	−0.8
Agricultural implements	+1.5	+6.0	Petroleum refining	−0.2	−1.0
Car building and repairing, steam-railroad	+1.5	+1.5	Carriages and wagons	−0.7	−1.0
Foundry and machine-shop products	+1.4	−1.0	Clothing, women's	−0.7	−2.3
Electrical machinery, apparatus, and supplies	+1.3	+0.1	Cotton goods	−1.0	−9.3
Automobiles	+1.2	+3.5	Furniture	−1.0	−2.6
Chemicals	+1.2	+0.3	Glass	−1.0	(2)
Cigars and cigarettes	+1.1	−0.5	Rubber boots and shoes	−1.0	−2.8
Dyeing and finishing textiles	+1.1	−1.3	Boots and shoes	−1.3	−2.0
Millinery and lace goods	+1.1	−0.5	Steam fittings and steam and hot-water heating apparatus	−1.5	−1.8
Pottery	+1.0	+0.5	Stamped and enameled ware	−1.6	−1.2
Silk goods	+1.0	+1.2	Slaughtering and meat packing	−2.0	+2.2
Confectionery	+0.9	−1.3	Hardware	−2.2	−2.1
Brick, tile, and terra cotta	+0.8	−6.0	Stoves	−2.5	−3.9
Flour	+0.8	+3.3	Clothing, men's	−2.7	−5.1
Leather	+0.8	+1.5	Woolen and worsted goods	−3.6	−2.8
			Chewing and smoking tobacco and snuff	−4.4	−1.6
			Fertilizers	−6.2	−2.3

[1] Less than one-tenth of 1 per cent. [2] No change.

Wage Changes

DURING the month ending March 15, 1928, 30 establishments in 12 industries reported wage-rate increases. These increases averaged 8 per cent each and affected 1,878 employees, or 18 per cent of the total employees in the establishments concerned.

During the same period 26 establishments in 15 industries reported wage-rate decreases. These decreases averaged 10.1 per cent each and affected 2,708 employees, or 65 per cent of the total employees in the establishments concerned.

Nine of the thirty establishments reporting wage-rate increases were book and job printing establishments, but with this exception no significance can be attached to either the increases or decreases.

TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN FEBRUARY 15 AND MARCH 15, 1928

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Ice cream	233	1	18.0	18.0	4	10	(1)
Baking	662	1	6.0	6.0	34	5	(1)
Silk goods	187	3	5.0–10.0	7.6	78	9	(1)
Foundry and machine-shop products	966	3	5.0–11.1	9.1	61	7	(1)
Steam fittings and steam and hot-water heating apparatus	106	1	5.0	5.0	20	50	(1)
Paper boxes	184	1	4.1	4.1	231	100	1
Printing, book and job	312	9	1.0–10.0	2.0	611	15	1
Chemicals	124	3	5.0–16.3	8.7	124	6	(1)
Fertilizers	182	2	25.0	25.0	262	93	1
Glass	112	3	6.3–10.0	7.9	426	37	1
Brass, bronze, and copper products	155	2	10.0	10.0	5	15	(1)
Car building and repairing, steam-railroad	562	1	16.8	16.8	22	14	(1)
			Decreases				
Slaughtering and meat packing	192	1	10.0	10.0	16	100	(1)
Baking	662	2	10.0	10.0	102	16	(1)
Cotton goods	470	3	10.0	10.0	631	65	(1)
Hosiery and knit goods	246	1	10.0	10.0	156	92	(1)
Woolen and worsted goods	188	1	10.0	10.0	280	96	(1)
Iron and steel	200	1	10.0	10.0	88	100	(1)
Foundry and machine-shop products	966	2	6.0–10.0	9.8	93	44	(1)
Stoves	95	1	5.0	5.0	25	17	(1)
Lumber, sawmills	453	3	10.0	10.0	380	74	(1)
Lumber, millwork	269	2	5.0–20.0	8.0	77	100	(1)
Furniture	428	4	5.0–10.0	9.3	586	78	1
Brick, tile, and terra cotta	380	2	10.0	10.0	99	83	(1)
Carriages and wagons	59	1	10.0	10.0	18	100	1
Car building and repairing, electric-railroad	391	1	3.0	3.0	37	100	(1)
Pianos and organs	40	1	20.0	20.0	120	99	2

[1] Less than one-half of 1 per cent.

Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX numbers for March, February, and January, 1928, and for March, 1927, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries, appear in Table 6.

The general index of employment for March, 1928, is 86.1, this number being 0.7 per cent higher than the index for February, 1928, 2.3 per cent higher than the index for January, 1928, and 5.8 per cent lower than the index for March, 1927. The general index of pay-roll totals for March, 1928, is 91.2, this number being 1.3 per cent higher than the index for February, 1928, 6.3 per cent higher than the index for January, 1928, and 6.7 per cent lower than the index for March, 1927.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, FEBRUARY, AND MARCH, 1928, AND MARCH, 1927

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	1927	1928			1927	1928		
	March	January	February	March	March	January	February	March
General index	**91.4**	**84.2**	**85.5**	**86.1**	**97.7**	**85.8**	**90.0**	**91.2**
Food and kindred products	**87.2**	**86.9**	**87.9**	**87.4**	**91.0**	**91.9**	**93.7**	**92.8**
Slaughtering and meat packing	79.2	81.7	83.9	82.0	80.6	85.8	89.1	85.4
Confectionery	79.3	79.1	79.5	77.7	89.0	86.1	87.2	85.9
Ice cream	83.4	76.1	76.3	79.7	90.1	84.7	83.0	86.5
Flour	85.5	87.3	87.5	87.7	86.4	92.3	90.5	91.5
Baking	101.1	99.4	99.4	100.2	107.1	104.3	105.4	106.2
Sugar refining, cane	89.9	78.0	82.1	83.8	91.5	82.3	87.4	92.6
Textiles and their products	**89.7**	**86.0**	**87.1**	**86.4**	**94.0**	**85.4**	**88.1**	**86.9**
Cotton goods	87.8	85.1	84.2	82.7	90.4	80.8	79.4	77.3
Hosiery and knit goods	98.2	95.7	97.0	96.2	116.5	109.7	112.2	111.2
Silk goods	101.3	97.2	100.7	101.8	111.5	100.5	111.1	113.5
Woolen and worsted goods	82.1	78.7	78.1	75.4	80.7	77.7	77.3	72.1
Carpets and rugs	98.4	96.2	97.3	96.9	99.1	92.0	90.9	92.0
Dyeing and finishing textiles	100.0	99.9	101.1	100.1	107.1	100.7	105.7	105.8
Clothing, men's	85.1	80.7	82.6	81.2	81.4	74.2	77.1	73.8
Shirts and collars	80.3	81.8	81.7	81.2	83.6	78.6	81.7	81.5
Clothing, women's	93.3	83.4	87.6	89.7	102.7	88.1	95.1	96.7
Millinery and lace goods	74.4	68.6	73.4	74.5	78.9	68.8	76.5	78.5
Iron and steel and their products	**90.3**	**79.2**	**81.5**	**82.8**	**97.8**	**80.2**	**87.9**	**89.9**
Iron and steel	95.6	85.1	87.9	89.6	104.0	85.8	96.0	98.0
Cast-iron pipe	99.4	84.6	82.5	85.6	101.9	71.7	80.3	86.7
Structural ironwork	93.5	89.0	89.5	88.7	100.4	93.2	97.3	96.9
Foundry and machine-shop products	86.3	74.8	76.6	77.9	91.8	74.4	79.6	82.0
Hardware	84.9	77.8	78.5	78.6	96.3	82.0	89.2	87.3
Machine tools	100.7	90.0	92.4	94.4	112.1	100.0	106.4	111.1
Steam fittings and steam and hot-water heating apparatus	90.9	78.2	80.4	81.6	98.1	77.0	86.6	86.6
Stoves	82.1	62.8	71.5	72.9	84.6	58.8	72.6	72.1
Lumber and its products	**82.9**	**77.0**	**77.0**	**78.3**	**90.6**	**79.5**	**82.9**	**85.6**
Lumber, sawmills	77.9	71.9	71.6	73.4	85.2	75.0	77.1	80.9
Lumber, millwork	88.2	81.5	81.9	82.1	92.7	80.2	85.2	87.1
Furniture	96.9	92.0	92.8	93.1	107.8	94.6	101.4	100.7
Leather and its products	**91.6**	**86.3**	**87.7**	**87.1**	**99.0**	**81.3**	**86.1**	**85.0**
Leather	92.9	90.4	91.1	90.4	94.3	91.3	93.1	93.2
Boots and shoes	91.2	84.9	86.6	86.0	88.3	77.3	83.3	81.7
Paper and printing	**104.4**	**103.8**	**103.3**	**102.4**	**114.2**	**113.8**	**113.0**	**113.1**
Paper and pulp	94.3	91.3	90.4	90.4	102.0	97.4	98.2	98.3
Paper boxes	95.9	95.8	94.3	94.2	106.0	106.6	104.2	106.5
Printing, book and job	106.5	106.4	106.5	103.2	119.6	119.8	117.2	116.4
Printing, newspapers	115.8	116.9	116.6	116.8	122.9	125.7	125.4	125.8

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, FEBRUARY, AND MARCH, 1928, AND MARCH, 1927—Contd.

Industry	Employment				Pay-roll totals			
	1927	1928			1927	1928		
	March	January	February	March	March	January	February	March
Chemicals and allied products	**105.0**	**89.9**	**93.6**	**100.1**	**110.0**	**95.8**	**98.2**	**102.5**
Chemicals	96.9	93.1	95.7	95.3	110.6	105.3	108.3	109.1
Fertilizers	134.6	93.7	109.2	151.8	131.8	101.3	111.3	145.1
Petroleum refining	103.0	84.0	83.8	83.9	103.3	83.9	83.6	83.5
Stone, clay, and glass products	**94.8**	**83.4**	**84.0**	**87.0**	**102.8**	**87.0**	**89.6**	**92.7**
Cement	84.8	76.4	74.5	76.6	88.0	79.8	75.6	77.8
Brick, tile, and terra cotta	91.3	77.0	76.7	80.4	97.1	76.1	76.3	80.7
Pottery	108.8	100.1	104.9	103.6	124.5	109.3	119.2	118.9
Glass	96.6	86.0	87.0	90.9	106.0	91.7	96.5	99.9
Metal products, other than iron and steel	**94.6**	**83.5**	**86.8**	**88.4**	**97.9**	**83.7**	**89.7**	**90.7**
Stamped and enameled ware	89.6	76.1	82.1	85.4	91.2	70.2	84.0	85.9
Brass, bronze, and copper products	96.8	86.9	89.0	89.7	100.3	88.7	91.8	92.4
Tobacco products	**83.5**	**78.1**	**81.4**	**82.2**	**82.1**	**79.1**	**79.3**	**80.2**
Chewing and smoking tobacco and snuff	97.8	97.3	99.3	95.7	100.0	101.5	104.6	96.2
Cigars and cigarettes	81.6	75.6	79.1	80.4	80.0	76.5	76.3	78.3
Vehicles for land transportation	**86.3**	**79.2**	**82.7**	**85.0**	**91.3**	**77.6**	**88.3**	**92.0**
Automobiles	106.1	98.8	108.2	112.9	112.6	93.3	117.4	124.0
Carriages and wagons	74.5	60.0	67.2	68.8	79.7	61.8	71.6	72.8
Car building and repairing, electric-railroad	89.5	86.9	87.1	87.2	92.5	90.3	88.9	91.9
Car building and repairing, steam-railroad	73.9	66.8	66.6	67.5	77.9	67.3	70.1	72.0
Miscellaneous industries	**102.5**	**89.1**	**87.7**	**86.8**	**111.4**	**95.1**	**92.0**	**92.1**
Agricultural implements	96.6	98.7	102.2	105.4	109.5	114.6	121.2	126.8
Electrical machinery, apparatus, and supplies	93.8	89.3	88.2	88.8	100.4	93.5	93.4	95.2
Pianos and organs	87.4	74.0	76.3	74.1	92.3	75.3	76.1	78.0
Rubber boots and shoes	87.6	95.1	92.9	84.9	97.5	108.4	101.6	91.9
Automobile tires	105.9	105.1	109.4	110.6	114.1	108.7	118.8	120.2
Shipbuilding	110.1	82.3	77.9	75.5	117.5	89.6	80.1	79.0

Table 7 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to March, 1928.

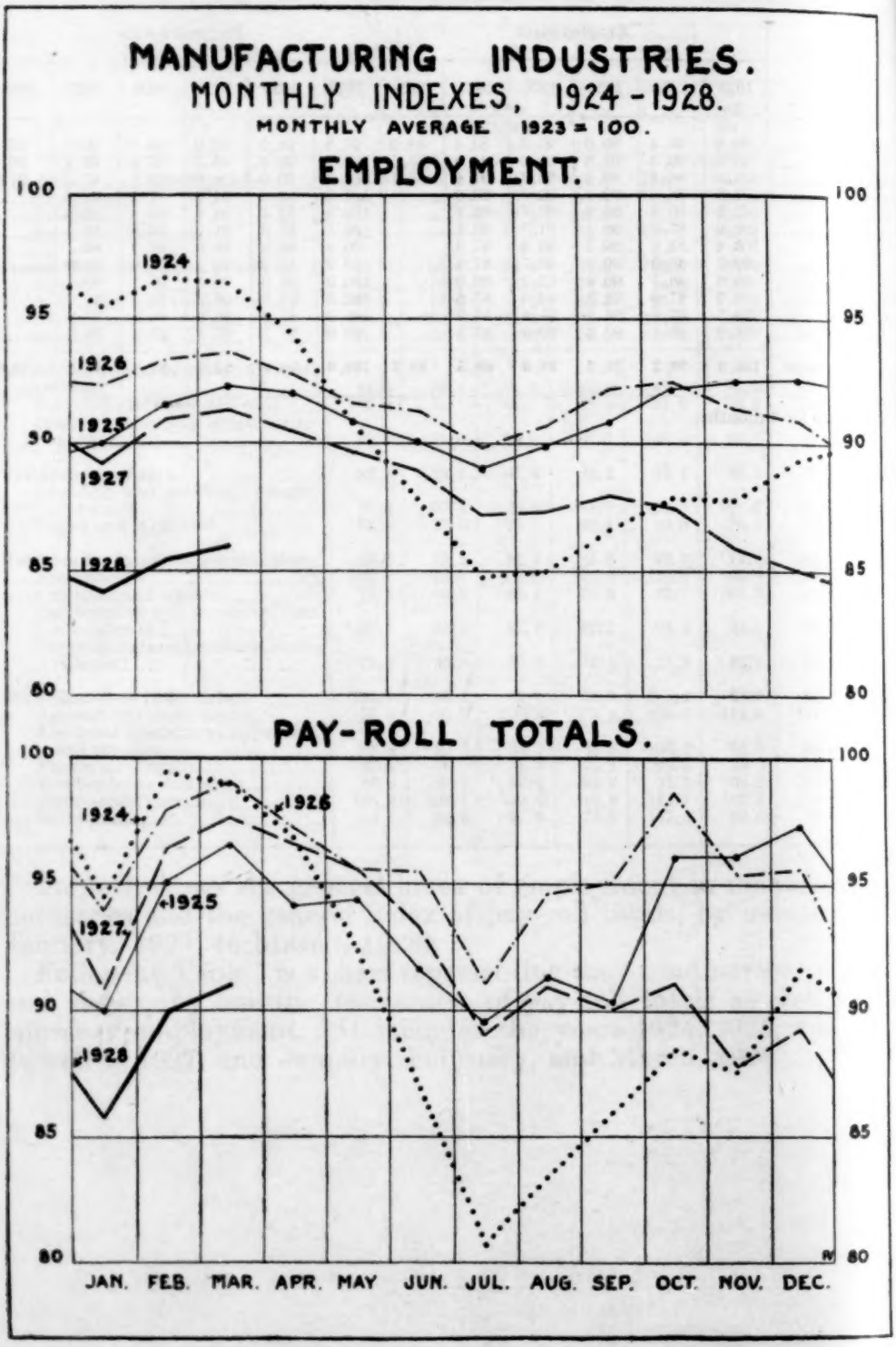
Following Table 7 is a chart representing the 54 industries combined and shows, by months, the course of pay-roll totals as well as the course of employment. It includes the years 1924, 1925, and 1926, as well as 1927, and January, February, and March, 1928.

TABLE 7.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO MARCH, 1928

[Monthly average, 1923=100]

Month	Employment						Pay-roll totals					
	1923	1924	1925	1926	1927	1928	1923	1924	1925	1926	1927	1928
January	98.0	95.4	90.0	92.3	89.4	84.2	91.8	94.5	90.0	93.9	90.9	85.8
February	99.6	96.6	91.6	93.3	91.0	85.5	95.2	99.4	95.1	97.9	96.4	90.0
March	101.8	96.4	92.3	93.7	91.4	86.1	100.3	99.0	96.6	99.1	97.7	91.2
April	101.8	94.5	92.1	92.8	90.6	-------	101.3	96.9	94.2	97.2	96.6	-------
May	101.8	90.8	90.9	91.7	89.7	-------	104.8	92.4	94.4	95.6	95.6	-------
June	101.9	87.9	90.1	91.3	89.1	-------	104.7	87.0	91.7	95.5	93.3	-------
July	100.4	84.8	89.3	89.8	87.3	-------	99.9	80.8	89.6	91.2	89.1	-------
August	99.7	85.0	89.9	90.7	87.4	-------	99.3	83.5	91.4	94.6	91.0	-------
September	99.8	86.7	90.9	92.2	88.0	-------	100.0	86.0	90.4	95.1	90.1	-------
October	99.3	87.9	92.3	92.5	87.6	-------	102.3	88.5	96.2	98.6	91.2	-------
November	98.7	87.8	92.5	91.4	85.9	-------	101.0	87.6	96.2	95.4	87.8	-------
December	96.9	89.4	92.6	90.9	85.1	-------	98.9	91.7	97.3	95.6	89.3	-------
Average	**100.0**	**90.3**	**91.2**	**91.9**	**88.5**	[1] **85.3**	**100.0**	**90.6**	**93.6**	**95.8**	**92.4**	[1] **89.0**

[1] Average for 3 months.


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES, 1924-1928.
MONTHLY AVERAGE 1923 = 100.
EMPLOYMENT.
100
95
90
85
80
1924
1926
1925
1927
1928
PAY-ROLL TOTALS.
JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

Proportion of Time Worked and Force Employed in Manufacturing Industries in March, 1928

Reports from 9,410 establishments in March show that 1 per cent of these establishments were idle, 78 per cent were operating on a full-time schedule, and 21 per cent on a part-time schedule; 30 per cent had a full normal force of employees and 69 per cent were operating with reduced forces.

The establishments in operation were employing an average of 86 per cent of a full normal force of employees and were operating an average of 96 per cent of full time. The percentage of full time operated is unchanged since the February report, while the percentage of full force employed indicates an increase in employment of 1.2 per cent.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN MARCH, 1928

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	**1,479**	(1)	**83**	**17**	**96**	**32**	**68**	**86**
Slaughtering and meat packing	148	------	90	10	99	47	53	93
Confectionery	265	------	66	34	94	11	89	73
Ice cream	176	1	98	2	100	2	97	65
Flour	277	1	69	31	90	42	58	91
Baking	599	(1)	90	10	99	42	58	92
Sugar refining, cane	14	------	79	21	93	14	86	82
Textiles and their products	**1,539**	**1**	**76**	**23**	**95**	**38**	**62**	**89**
Cotton goods	429	(1)	62	38	91	38	62	89
Hosiery and knit goods	188	1	77	22	95	38	61	90
Silk goods	167	------	87	13	98	51	49	92
Woolen and worsted goods	167	2	80	19	96	29	69	79
Carpets and rugs	27	------	89	11	98	41	59	97
Dyeing and finishing textiles	90	1	61	38	91	32	67	91
Clothing, men's	216	(1)	81	18	96	35	65	88
Shirts and collars	70	1	79	20	97	41	57	94
Clothing, women's	132	------	97	3	100	44	56	96
Millinery and lace goods	53	2	89	9	99	26	72	88
Iron and steel and their products	**1,610**	(1)	**68**	**32**	**95**	**21**	**79**	**83**
Iron and steel	158	3	70	27	94	15	82	86
Cast-iron pipe	35	------	51	49	88	29	71	78
Structural ironwork	160	------	78	23	97	18	82	83
Foundry and machine-shop products	876	(1)	66	34	95	20	80	81
Hardware	53	------	60	40	95	13	87	83
Machine tools	140	------	83	17	98	25	75	86
Steam fittings and steam and hot-water heating apparatus	100	------	62	38	93	29	71	84
Stoves	88	------	58	42	91	34	66	87
Lumber and its products	**1,615**	**1**	**73**	**26**	**96**	**26**	**73**	**82**
Lumber, sawmills	403	2	86	12	98	26	72	80
Lumber, millwork	235	2	59	40	94	17	81	76
Furniture	377	------	67	33	94	32	68	89
Leather and its products	**325**	(1)	**86**	**14**	**98**	**34**	**65**	**90**
Leather	118	------	93	7	99	30	70	87
Boots and shoes	207	(1)	82	17	97	37	62	91

[1] Less than one-half of 1 per cent.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN MARCH, 1928—Continued

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Paper and printing	**807**	(1)	**89**	**10**	**99**	**44**	**56**	**95**
Paper and pulp	181	1	88	11	98	36	63	93
Paper boxes	176	------	73	27	96	25	75	87
Printing, book and job	305	(1)	95	5	100	47	53	97
Printing, newspapers	145	------	100	------	100	70	30	100
Chemicals and allied products	**306**	(1)	**90**	**10**	**99**	**40**	**60**	**96**
Chemicals	104	------	89	11	98	49	51	94
Fertilizers	162	1	88	12	99	41	59	92
Petroleum refining	40	------	100	------	100	10	90	77
Stone, clay, and glass products	**537**	**6**	**75**	**19**	**96**	**20**	**74**	**83**
Cement	86	3	86	10	98	14	83	76
Brick, tile, and terra cotta	292	10	64	25	95	15	74	77
Pottery	65	2	82	17	96	38	60	94
Glass	94	------	94	6	99	26	74	87
Metal products, other than iron and steel	**201**	------	**73**	**27**	**96**	**27**	**73**	**87**
Stamped and enameled ware	67	------	82	18	98	33	67	89
Brass, bronze, and copper products	134	------	69	31	95	25	75	86
Tobacco products	**147**	**2**	**65**	**33**	**94**	**35**	**63**	**91**
Chewing and smoking tobacco and snuff	27	------	81	19	97	37	63	93
Cigars and cigarettes	120	3	62	36	94	34	63	91
Vehicles for land transportation	**1,092**	(1)	**89**	**11**	**98**	**28**	**72**	**87**
Automobiles	180	------	84	16	98	27	73	91
Carriages and wagons	56	------	70	30	95	25	75	70
Car building and repairing, electric-railroad	357	------	96	4	99	39	61	94
Car building and repairing, steam-railroad	499	(1)	88	12	98	21	79	78
Miscellaneous industries	**352**	------	**73**	**27**	**96**	**29**	**71**	**84**
Agricultural implements	87	------	66	34	95	30	70	95
Electrical machinery, apparatus, and supplies	137	------	77	23	98	32	68	83
Pianos and organs	38	------	66	34	94	21	79	69
Rubber boots and shoes	11	------	55	45	94	45	55	90
Automobile tires	49	------	73	27	95	29	71	91
Shipbuilding	30	------	97	3	100	17	83	61
Total	**9,410**	**1**	**78**	**21**	**96**	**30**	**69**	**86**

[1] Less than one-half of 1 per cent.

Employment on Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to February, 1928, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1923 as 100.

Table 2 shows the total number of employees on the 15th day each of February, 1928, January, 1928, and February, 1927, and the pay-roll totals for each of the entire months considered, by principal occupational groups and various important occupations.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES—JANUARY, 1923, TO FEBRUARY, 1928

[Monthly average, 1923=100]

Month	1923	1924	1925	1926	1927	1928
January	94.6	93.1	91.9	92.1	91.8	85.8
February	94.8	93.2	91.7	92.3	91.6	85.5
March	96.6	93.6	91.5	92.9	92.1	----
April	98.0	95.0	92.8	95.0	93.6	----
May	100.9	95.3	94.0	96.3	95.5	----
June	102.9	94.2	94.8	97.6	97.0	----
July	104.0	94.3	95.5	98.9	97.1	----
August	105.1	95.1	95.8	98.7	95.6	----
September	103.6	95.8	96.0	98.8	95.2	----
October	103.1	96.9	96.8	99.4	95.0	----
November	101.1	95.1	95.2	97.3	92.0	----
December	95.5	92.3	93.3	94.4	88.3	----
Average	**100.0**	**94.5**	**94.1**	**96.1**	**93.7**	[1] **85.7**

[1] Average for 2 months.

TABLE 2.—EMPLOYMENT AND PAY-ROLL TOTALS ON CLASS I RAILROADS—FEBRUARY, 1927, AND JANUARY AND FEBRUARY, 1928

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	February, 1927	January, 1928	February, 1928	February, 1927	January, 1928	February, 1928
Professional, clerical, and general	**282,877**	**272,741**	**271,818**	**$37,739,951**	**$38,954,987**	**$38,267,873**
Clerks	165,126	156,743	155,933	20,550,805	21,174,452	20,671,125
Stenographers and typists	25,426	24,790	24,699	3,068,914	3,166,143	3,125,116
Maintenance of way and structures	**353,516**	**332,969**	**329,452**	**31,252,824**	**31,743,591**	**29,871,638**
Laborers, extra gang and work train	47,453	38,390	38,277	3,181,197	2,818,080	2,606,479
Laborers, track and roadway section	178,125	171,153	168,998	11,886,805	12,372,249	11,402,057
Maintenance of equipment and stores	**509,213**	**468,198**	**466,490**	**62,545,353**	**61,883,093**	**59,062,209**
Carmen	108,804	99,667	99,018	14,964,417	14,805,143	14,093,144
Machinists	60,456	56,800	56,906	8,954,701	8,988,056	8,561,092
Skilled trades helpers	112,613	102,514	101,747	11,664,767	11,482,658	10,869,511
Laborers (shops, engine houses, power plants, and stores)	43,113	39,764	39,320	3,817,017	3,872,979	3,604,074
Common laborers (shops, engine houses, power plants, and stores)	59,018	52,905	53,241	4,394,856	4,265,244	4,097,319
Transportation, other than train, engine, and yard	**204,757**	**194,697**	**195,613**	**23,656,178**	**24,417,919**	**23,702,681**
Station agents	30,526	30,125	30,045	4,466,210	4,757,963	4,591,430
Telegraphers, telephoners, and towermen	25,244	23,746	23,475	3,536,187	3,733,406	3,473,768
Truckers (stations, warehouses, and platforms)	37,029	32,068	33,195	3,129,426	2,951,807	3,015,428
Crossing and bridge flagmen and gatemen	21,979	21,477	21,455	1,666,197	1,655,763	1,637,760
Transportation (yard masters, switch tenders, and hostlers)	**24,053**	**22,520**	**22,444**	**4,343,239**	**4,422,128**	**4,236,398**
Transportation, train and engine	**329,144**	**306,133**	**305,584**	**60,995,922**	**61,709,214**	**58,839,303**
Road conductors	36,792	34,636	34,353	8,202,193	8,220,925	7,799,576
Road brakemen and flagmen	74,461	69,409	68,511	12,002,301	11,814,469	11,228,372
Yard brakemen and yard helpers	55,814	50,779	51,306	9,000,802	9,148,164	8,785,954
Road engineers and motormen	44,139	41,405	40,946	10,696,580	11,019,304	10,487,908
Road firemen and helpers	45,258	42,689	41,967	8,158,888	8,255,132	7,782,953
Total	**1,703,559**	**1,597,258**	**1,591,401**	**220,533,467**	**223,130,932**	**213,980,102**

Employment Conditions in New York State

IN RESPONSE to a request from the Governor of New York the State industrial commissioner submitted on February 14, 1928, a report on employment conditions in New York State and New York City,[1] including statistics of factory employment, returns from building departments in various cities, records of the State employment service, and private welfare agencies, and other data secured from reliable sources from various cities.

The report points out that "the evidence at hand indicates an extensive amount of unemployment and that serious distress has been caused. One has to go back to 1921 to find an employment situation rivaling the present."

Factory Employment

APPROXIMATELY 500,000 employees, or from 35 to 40 per cent of all the factory workers in New York State, are included in the monthly reports made to the State department of labor. These reports show that "since the spring of 1926 the general level of factory employment has declined, and in December, 1927, the index of such employment was below that of December, 1921. In January, 1928, there was a further decrease of 2 per cent, bringing the index below that of January, 1921."

Falling Off of Building Activities

THE returns on the issuance of building permits in 23 cities of New York State indicated a decline in 1927 of 13 per cent in the estimated cost of such building work as compared with the previous year.

Employment Conditions in New York City

ACCORDING to detailed reports of the employment service of the New York State Department of Labor for its Manhattan, Brooklyn, and Bronx offices and the Harlem office for negroes, the combined registration for adults and juveniles for December, 1927, was 13.6 per cent below the registrations for the corresponding period in 1926, while the adult registrations alone were 23.2 per cent less in December, 1927. The decrease in placements of both adults and juveniles was even more striking, being in December, 1927, 36.6 per cent below the December, 1926, record.

The decline in registrants may be explained by the fact that in times of serious unemployment men flock into the office and when they hear jobs are not available turn away without registering. When there is a fair condition of the market with some jobs available a larger proportion of the men who call make formal registration. The largest percentage of registrants is obtained when many jobs are open since the workmen become eager to move on to better positions. In addition, space in one of the offices is limited and when it becomes congested many turn away immediately, thus reducing still further the number registering.

[1] New York. Department of Labor. Report to Hon. Alfred E. Smith, Governor of the State of New York, on unemployment conditions in New York State, by James A. Hamilton, industrial commissioner, February, 1928. Albany, 1928.

Of 30 voluntary employment agencies making returns, 22 reported a larger number of applicants for work in December, 1927, than in the corresponding period in 1926, and 8 reported fewer applicants in December, 1927. For the whole group of reporting voluntary agencies the placements in December, 1927, were 5,547, or 638 more than in December, 1926.

Of the 15 family service agencies reporting, 13 together had 23,330 active cases in December, 1927, or 1,950 in excess of December, 1926. With one exception the 10 seamen's agencies stated that they had increased calls for service in December, 1927.

Of the four agencies concerned with homeless men, three together served 2,922 persons in December, 1927, or 423 more than in December of the previous year. The fourth agency had very many more applicants in December, 1927, than in December, 1926, but the number of those served in the latter period was less because of the dearth of jobs, which necessitated the men's remaining in the institution for a longer period.

Admission to the municipal lodging house numbered 17,220 in December, 1927, or 7,053 above the December, 1926, record.

Situation in Other Cities

AMONG the cities for which estimates as to the number of unemployed are given in the report are the following:

	Population	Unemployed
Buffalo	538,016	35,000 to 45,000
Rochester	316,786	10,000
Syracuse	182,003	5,000 to 7,000

Changes in Employment and Pay roll in Various States

THE following data as to changes in employment and pay roll have been compiled from reports received from the State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLL IN SPECIFIED STATES

Monthly period

State and industry group	Per cent of change, January to February, 1928	
	Employment	Pay roll
Illinois		
Stone, clay, and glass products	−0.5	+1.0
Metals, machinery, and conveyances	+4.4	+13.8
Wood products	+2.6	+10.0
Furs and leather goods	+.7	+2.2
Chemicals, oils, paints, etc	+2.2	+9.6
Printing and paper goods	−1.8	−3.5
Textiles	+4.6	+10.2
Clothing, millinery, and laundering	+1.9	+5.5
Food, beverages, and tobacco	+1.8	+5.2
All manufacturing industries	+2.7	+8.2
Trade, wholesale and retail	−3.4	−6.4
Public utilities	−1.5	−.3
Coal mining	+1.1	−2.7
Building and contracting	−5.7	−4.6
All industries	+1.3	+4.6
	February to March, 1928	
Iowa		
Food and kindred products	+0.3	
Textiles	+.5	
Iron and steel works	+1.4	
Lumber products	+.7	
Leather products	−3.1	
Paper products, printing and publishing	+3.0	
Patent medicines, chemicals, and compounds	+1.5	
Stone and clay products	+3.4	
Tobacco and cigars	−10.7	
Railway car shops	+3.4	
Various industries	+3.0	
All industries	+1.7	
Maryland		
Food products	+4.4	+10.8
Textiles	+1.2	+3.0
Iron and steel and their products	+2.6	+4.2
Lumber and its products	+.1	−3.7
Leather and its products	−1.4	+3.3
Rubber tires	−.2	−14.3
Paper and printing	+2.2	+3.4

State and industry group	Per cent of change, February to March, 1928	
	Employment	Pay roll
Maryland—Continued		
Chemicals and allied products	+10.4	+10.3
Stone, clay, and glass	+1.7	+2.5
Metal products other than iron and steel	+.4	−3.5
Tobacco products	−4.8	−22.0
Machinery (not including transportation equipment)	−1.8	+.2
Musical instruments	−1.2	−.1
Transportation equipment	−1.9	−8.8
Miscellaneous	−2.2	+3.7
All industries	+1.7	+1.2
	Employment—index numbers (1919–1923=100)	
	February, 1928	March, 1928
Massachusetts		
Boots and shoes	73.2	74.0
Bread and other bakery products	99.2	101.5
Cars and general shop construction and repairs, steam railroads	75.2	74.6
Clothing, men's and women's	96.6	95.0
Confectionery	76.8	79.5
Cotton goods	68.5	65.8
Dyeing and finishing textiles	102.5	101.9
Electrical machinery, apparatus, and supplies	102.6	101.2
Foundry and machine-shop products	64.6	64.6
Furniture	105.4	106.1
Hosiery and knit goods	89.6	88.1
Jewelry	100.9	100.4
Leather, tanned, curried, and finished	88.8	89.7
Paper and wood pulp	93.1	93.4
Printing and publishing	104.0	104.6
Rubber footwear	104.9	88.9
Rubber goods, tires and tubes	95.1	91.6
Silk goods	115.9	114.1
Textile machinery and parts	62.1	57.4
Woolen and worsted goods	82.6	82.2
All industries	83.3	82.1

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLL IN SPECIFIED STATES—Continued

Monthly period—Continued

State and industry group	Per cent of change, January to February, 1928	
	Employment	Pay roll
New Jersey		
Food and kindred products	−0.8	−0.1
Textiles and their products	+2.2	+6.4
Iron and steel and their products	−1.0	−.2
Lumber and its products	−2.9	−2.4
Leather and its products	+2.4	+3.5
Tobacco products	+6.0	+7.0
Paper and printing	−1.1	+2.8
Chemicals and allied products	−1.6	−1.7
Stone, clay, and glass products	+1.2	+2.4
Metal products, other than iron and steel	−.6	+3.2
Vehicles for land transportation	−6.9	−4.8
Miscellaneous	−2.6	−1.6
All industries	−.5	+1.2
New York		
Stone, clay, and glass	−5.4	−7.3
Metals and machinery	+1.4	+1.6
Wood manufactures	+.4	−.5
Furs, leather, and rubber goods	+.4	+3.3
Chemicals, oils, paints, etc	−.6	−1.3
Paper	−2.8	−3.9
Printing and paper goods	−.3	−4.8
Textiles	+1.6	+1.4
Clothing and millinery	+3.4	+6.0
Food and tobacco	+1.8	+2.6
Water, light, and power	−2.8	−2.6
All industries	+1.1	+.9
	February to March, 1928	
Oklahoma		
Cottonseed oil mills	−45.0	−43.3
Food production:		
Bakeries	−5.8	−9.0
Confections	−11.5	−3.2
Creameries and dairies	+14.2	+5.0
Flour mills	+13.3	+22.0
Ice and ice cream	+33.1	+63.4
Meat and poultry	+5.3	−10.6
Lead and zinc:		
Mines and mills	−29.9	−28.7
Smelters	−5.8	+23.3
Metals and machinery:		
Auto repairs, etc	−5.4	+3.7
Machine shops and foundries	−2.6	−10.7
Tank construction and erection	−44.5	−37.7
Oil industry:		
Producing and gasoline manufacture	+6.0	+4.3
Refineries	+2.1	−37.0
Printing: Job work	−20.7	−22.7
Public utilities:		
Steam railway shops	.0	−1.1
Street railways	+5.1	−4.7
Water, light, and power	+1.0	+4.8

State and industry group	Per cent of change, February to March, 1928	
	Employment	Pay roll
Oklahoma—Continued		
Stone, clay, and glass:		
Brick and tile	−23.7	−17.0
Cement and plaster	+2.3	−1.8
Crushed stone	+5.8	+10.8
Glass manufacture	−8.4	−6.4
Textiles and cleaning:		
Textile manufacture	.0	+40.3
Laundries, etc	+43.7	−5.5
Woodworking:		
Sawmills	+220.1	+274.8
Millwork, etc	+1.4	−25.2
All industries	+.9	−10.6
Pennsylvania		
Metal products	−0.8	−1.8
Transportation equipment	−2.2	−3.6
Textile products	+.5	−.4
Foods and tobacco	+2.5	+3.6
Stone, clay, and glass products	+4.2	+5.3
Lumber products	−.7	−2.9
Chemical products	+.5	−1.1
Leather and rubber products	−1.4	−.2
Paper and printing	−.9	+.4
Construction and contracting	−6.0	−9.9
All industries	0	−.8
	December, 1927, to January, 1928	
Wisconsin		
Manual		
Mining	+2.4	−21.8
Stone crushing and quarrying	+2.1	+15.3
Manufacturing:		
Stone and allied industries	−4.0	+9.5
Metal	−.3	−3.7
Wood	+4.4	−8.9
Rubber	−5.3	−22.6
Leather	−3.7	−9.0
Paper	−.1	−5.2
Textiles	−3.5	−11.3
Foods	−2.4	−6.1
Light and power	−.5	−9.2
Printing and publishing	+1.4	−2.2
Laundering, cleaning, and dyeing	−.3	−8.5
Chemical (including soap, glue, and explosives)	−6.2	−4.7
All manufacturing	−.4	−6.9
Construction:		
Building	−14.8	−11.7
Highway	−29.6	−28.1
Railroad	−10.8	−14.9
Marine, dredging, sewer digging	−10.8	−10.7

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLL IN SPECIFIED STATES—Continued

Monthly period—Continued

State and industry group	Per cent of change, December, 1927 to January, 1928	
	Employment	Pay roll
Wisconsin—Continued		
Manual—Continued		
Communication:		
Steam railways	−8.9	+0.2
Electric railways	−10.5	−6.0
Express, telephone, and telegraph	−8.9	−4.2
Wholesale trade	−4.8	−10.4
Hotels and restaurants	−.4	.....
Wisconsin—Continued		
Nonmanual		
Manufacturing, mines, and quarries	−1.9	−2.0
Construction	−1.3	−.7
Communication	−1.2	+.4
Wholesale trade	+2.1	+12.7
Retail trade—Sales force only	−24.9	−20.2
Miscellaneous professional services	−1.6	−10.6
Hotels and restaurants	+2.5	.....

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLL IN SPECIFIED STATES—Continued

Yearly period

State and industry group	Per cent of change, February, 1927, to February, 1928	
	Employment	Pay roll
California		
Stone, clay, and glass products	−8.7	−9.6
Metals, machinery, and conveyances	−12.1	−9.3
Wood manufactures	−.5	+2.8
Leather and rubber goods	+8.2	+11.5
Chemicals, oils, paints, etc	−20.9	−21.1
Printing and paper goods	−.4	+1.4
Textiles	−8.4	−4.0
Clothing, millinery, and laundering	+1.6	−1.3
Food, beverages, and tobacco	+2.0	+4.6
Water, light, and power	−2.4	−.3
Miscellaneous	+3.1	+12.3
All industries	−6.4	−5.6
New York		
Stone, clay and glass	−9.6	−10.3
Metals and machinery	−8.0	−8.8
Wood manufactures	−12.2	−13.9
Furs, leather and rubber goods	−4.2	−6.4
Chemicals, oils, paints, etc	−2.9	−1.0
Paper	−3.6	−5.1
Printing and paper goods	−2.8	−2.7
Textiles	−4.8	−9.0
Clothing and millinery	−5.9	−6.9
Food and tobacco	−1.0	+.7
Water, light, and power	−2.7	−1.6
All industries	−5.9	−6.8

State and industry group	March 1927, to March, 1928	
	Employment	Pay roll
Oklahoma		
Cottonseed oil mills	−52.8	−50.0
Food production:		
Bakeries	−26.5	−30.8
Confections	+4.5	+4.1
Creameries and dairies	−5.8	−20.3
Flour mills	−24.0	−20.9
Ice and ice cream	−37.3	−15.7
Meat and poultry	+4.5	−16.1
Lead and zinc:		
Mines and mills	−58.9	−55.4
Smelters	+2.6	+22.0
Metals and machinery:		
Auto repairs, etc	−64.0	−62.0
Machine shops and foundries	−33.1	−40.5
Tank construction and erection	−413.8	−83.6
Oil industry:		
Producing and gasoline manufacture	−34.5	−30.6
Refineries	−15.2	−34.5
Printing: Job work	−27.4	−30.5
Public utilities:		
Steam railway shops	−13.1	+1.6
Street railways	−10.1	−5.5
Water, light and power	−24.4	−20.6

State and industry group	Per cent of change, March, 1927, to March, 1928	
	Employment	Pay roll
Oklahoma—Continued		
Stone, clay, and glass:		
Brick and tile	−26.1	−23.2
Cement and plaster	−7.6	−5.8
Crushed stone	+21.0	+50.7
Glass manufacture	−10.0	−12.0
Textiles and cleaning:		
Textile manufacture	+45.3	+130.5
Laundries, etc	−9.8	−19.1
Woodworking:		
Sawmills	+113.6	+221.2
Millwork, etc	+2.8	−.3
All industries	−22.0	−25.4

State and industry group	January, 1927, to January, 1928	
	Employment	Pay roll
Wisconsin		
Manual		
Agriculture	−22.1	−57.4
Logging	+8.3	+6.3
Mining	−9.4	−29.1
Stone crushing and quarrying	+11.6	+20.1
Manufacturing:		
Stone and allied industries	+12.1	+12.9
Metal	−10.4	−12.7
Wood	−3.8	−14.9
Rubber	+29.4	+12.1
Leather	−12.9	−13.9
Paper	+2.3	+.9
Textiles	+4.8	+6.7
Foods	−2.2	−1.4
Light and power	+5.1	−4.3
Printing and publishing	+7.4	+11.0
Laundering, cleaning, and dyeing	+1.9	−5.4
Chemical (including soap, glue, and explosives)	−11.7	−15.5
All manufacturing	−3.4	−7.4
Construction:		
Building	−2.8	+.7
Highway	+55.6	+72.5
Railroad	+12.0	+3.3
Marine, dredging, sewer digging	+80.8	+133.5
Communication:		
Steam railways	−3.6	+10.6
Electric railways	−1.7	−2.4
Express, telephone, and telegraph	+15.6	+19.2
Wholesale trade	+1.0	−12.5
Hotels and restaurants	−5.4	.....
Nonmanual		
Manufacturing, mines, and quarries	+1.2	+3.4
Construction	−1.3	+2.5
Communication	−1.0	+.3
Wholesale trade	+10.9	+16.5
Retail trade—Sales force only	+9.6	+5.3
Miscellaneous professional services	+6.9	+6.7
Hotels and restaurants	+14.2	.....

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices [1] received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food March 15, 1927, and February 15 and March 15, 1928, as well as the percentage changes in the year and in the month. For example, the retail price per 15–16 ounce can of evaporated milk was 11.4 cents on March 15, 1927; 11.5 cents on February 15, 1928; and 11.2 cents on March 15, 1928. These figures show decreases of 2 per cent in the year, and 3 per cent in the month.

The cost of the various articles of food combined shows a decrease of 1.5 per cent March 15, 1928, as compared with March 15, 1927, and a decrease of 0.2 per cent March 15, 1928, as compared with February 15, 1928.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE MARCH 15, 1928, COMPARED WITH FEBRUARY 15, 1928, AND MARCH 15, 1927

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Mar. 15, 1928, compared with—	
		Mar. 15, 1927	Feb. 15, 1928	Mar. 15, 1928	Mar. 15, 1927	Feb. 15, 1928
		Cents	*Cents*	*Cents*		
Sirloin steak	Pound	41.1	44.8	44.9	+9	+0.2
Round steak	do	35.6	38.9	39.1	+10	+1
Rib roast	do	30.4	33.1	33.1	+9	0
Chuck roast	do	22.8	25.7	25.9	+14	+1
Plate beef	do	14.9	17.5	17.7	+19	+1
Pork chops	do	36.6	29.5	28.6	−22	−3
Bacon	do	48.4	43.7	43.0	−11	−2
Ham	do	56.5	51.2	50.5	−11	−1
Lamb, leg of	do	38.4	37.5	38.2	−1	+2
Hens	do	38.7	37.2	37.2	−4	0
Salmon, canned, red	do	33.0	35.4	35.4	+7	0
Milk, fresh	Quart	14.1	14.3	14.2	+1	−1
Milk, evaporated	15–16 oz. can	11.4	11.5	11.2	−2	−3
Butter	Pound	59.2	56.3	57.3	−3	+2
Oleomargarine (all butter substitutes)	do	28.7	27.6	27.4	−5	−1
Cheese	do	37.3	39.2	38.4	+3	−2
Lard	do	19.4	18.3	17.8	−8	−3
Vegetable lard substitute	do	25.2	24.9	24.9	−1	0
Eggs, strictly fresh	Dozen	35.4	43.1	37.0	+5	−14
Bread	Pound	9.4	9.2	9.1	−3	−1
Flour	do	5.5	5.3	5.3	−4	0
Corn meal	do	5.1	5.2	5.2	+2	0
Rolled oats	do	9.1	9.0	9.0	−1	0
Corn flakes	8-oz. pkg	10.8	9.7	9.7	−10	0
Wheat cereal	28-oz. pkg	25.5	25.6	25.6	+0.4	0

[1] In addition to monthly retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE MARCH 15, 1928, COMPARED WITH FEBRUARY 15, 1928, AND MARCH 15, 1927—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Mar. 15, 1928, compared with—	
		Mar. 15, 1927	Feb. 15, 1928	Mar. 15, 1928	Mar. 15, 1927	Feb. 15, 1928
		Cents	*Cents*	*Cents*		
Macaroni	Pound	20.1	20.0	19.9	−1	−1
Rice	do	10.8	10.2	10.1	−6	−1
Beans, navy	do	9.1	10.1	10.7	+18	+6
Potatoes	do	3.7	3.0	3.4	−8	+13
Onions	do	5.9	5.2	6.3	+7	+21
Cabbage	do	5.2	4.5	5.2	0	+16
Beans, baked	No. 2 can	11.6	11.3	11.4	−2	+1
Corn, canned	do	15.9	15.8	15.9	0	+1
Peas, canned	do	17.0	16.8	16.7	−2	−1
Tomatoes, canned	do	12.2	11.8	11.7	−4	−1
Sugar	Pound	7.4	7.1	7.1	−4	0
Tea	do	77.6	77.3	77.4	−0.3	+0.1
Coffee	do	49.3	48.6	48.8	−1	+0.4
Prunes	do	15.8	13.6	13.5	−15	−1
Raisins	do	14.3	13.6	13.6	−5	0
Bananas	Dozen	34.1	34.8	33.8	−1	−3
Oranges	do	46.9	51.0	52.9	+13	+4
Weighted food index					−1.5	−0.2

Table 2 shows for the United States average retail prices of specified food articles on March 15, 1913, and on March 15 of each year from 1922 to 1928, together with percentage changes in March of each of these specified years, compared with March, 1913. For example, the retail price per quart of fresh milk was 8.9 cents in March, 1913; 13.0 cents in March, 1922; 13.6 cents in March, 1923; 13.9 cents in March, 1924; 13.8 cents in March, 1925; 14.0 cents in March, 1926; 14.1 cents in March, 1927; and 14.2 cents in March, 1928.

As compared with March, 1913, these figures show increases of 46 per cent in March, 1922; 53 per cent in March, 1923; 56 per cent in March, 1924; 55 per cent in March, 1925; 57 per cent in March, 1926; 58 per cent in March, 1927; and 60 per cent in March, 1928.

The cost of the various articles of food combined showed an increase of 56.1 per cent in March, 1928, as compared with March, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE MARCH 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH MARCH 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail price on Mar. 15—								Per cent of increase Mar. 15 of each specified year compared with Mar. 15, 1913						
	1913	1922	1923	1924	1925	1926	1927	1928	1922	1923	1924	1925	1926	1927	1928
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak..pound..	24.7	35.9	37.3	38.9	39.6	40.7	41.1	44.9	45	51	57	60	65	66	82
Round steak....do....	21.3	30.8	31.7	33.1	33.6	34.9	35.6	39.1	45	49	55	58	64	67	84
Rib roast....do....	19.4	27.0	27.6	28.6	29.1	29.9	30.4	33.1	39	42	47	50	54	57	71
Chuck roast....do....	15.6	19.3	19.5	20.6	21.0	22.1	22.8	25.9	24	25	32	35	42	46	66
Plate beef....do....	11.8	13.0	12.8	13.3	13.5	14.6	14.9	17.7	10	8	13	14	24	26	50
Pork chops....do....	20.3	31.3	28.3	26.9	37.4	37.2	36.6	28.6	54	39	33	84	83	80	41
Bacon....do....	26.1	39.0	39.2	36.3	44.4	48.4	48.4	43.0	49	50	39	70	85	85	65
Ham....do....	26.0	49.8	45.0	44.0	51.2	54.0	56.5	50.5	92	73	69	97	108	117	94
Lamb, leg of....do....	19.1	37.5	36.0	37.1	39.0	37.9	38.4	38.2	96	88	94	104	98	101	100
Hens....do....	21.4	37.8	35.8	35.9	36.9	39.4	38.7	37.2	77	67	68	72	84	81	74
Salmon, canned, red ....pound..	.....	32.6	31.2	31.1	31.2	37.6	33.0	35.4	.....	.....	.....	.....	.....	.....	.....
Milk, fresh....quart..	8.9	13.0	13.6	13.9	13.8	14.0	14.1	14.2	46	53	56	55	57	58	60
Milk, evaporated ....15–16 oz. can..	.....	16.3	12.2	12.1	11.2	11.6	11.4	11.2	.....	.....	.....	.....	.....	.....	.....
Butter....pound..	41.4	45.8	57.6	58.0	55.5	53.6	59.2	57.3	11	39	40	34	29	43	38
Oleomargarine (all butter substitutes) ....pound..	.....	27.5	28.2	29.7	30.1	30.9	28.7	27.4	.....	.....	.....	.....	.....	.....	.....
Cheese....do....	22.1	33.0	37.1	36.7	36.5	37.2	37.3	38.4	49	68	66	65	68	69	74
Lard....do....	15.6	17.3	17.4	17.5	23.1	21.9	19.4	17.8	11	12	12	48	40	24	14
Vegetable lard substitute....pound..	.....	21.9	22.4	24.5	25.8	25.6	25.2	24.9	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh ....dozen..	26.4	31.8	38.5	34.8	39.1	38.5	35.4	37.0	20	46	32	48	46	34	40
Bread....pound..	5.6	8.7	8.7	8.7	9.4	9.4	9.4	9.1	55	55	55	68	68	68	63
Flour....do....	3.3	5.3	4.8	4.6	6.4	6.2	5.5	5.3	61	45	39	94	88	67	61
Corn meal....do....	2.9	3.9	4.0	4.4	5.5	5.2	5.1	5.2	34	38	52	90	79	76	79
Rolled oats....do....	.....	8.8	8.8	8.8	9.2	9.1	9.1	9.0	.....	.....	.....	.....	.....	.....	.....
Corn flakes ....8-oz. package..	.....	10.2	9.7	9.7	11.1	11.0	10.8	9.7	.....	.....	.....	.....	.....	.....	.....
Wheat cereal ....28-oz. package..	.....	26.0	24.7	24.3	24.7	25.4	25.5	25.6	.....	.....	.....	.....	.....	.....	.....
Macaroni....pound..	.....	20.2	19.8	19.5	20.4	20.3	20.1	19.9	.....	.....	.....	.....	.....	.....	.....
Rice....do....	8.6	9.3	9.4	9.7	10.9	11.7	10.8	10.1	8	9	13	27	36	26	17
Beans, navy....do....	.....	8.9	11.4	9.9	10.4	9.4	9.1	10.7	.....	.....	.....	.....	.....	.....	.....
Potatoes....do....	1.5	3.1	2.2	2.8	2.5	5.6	3.7	3.4	107	47	87	67	273	147	127
Onions....do....	.....	11.6	5.4	5.9	6.3	5.9	5.9	6.3	.....	.....	.....	.....	.....	.....	.....
Cabbage....do....	.....	5.4	6.6	6.2	5.2	7.2	5.2	5.2	.....	.....	.....	.....	.....	.....	.....
Beans, baked ....No. 2 can..	.....	13.2	13.0	12.8	12.6	12.1	11.6	11.4	.....	.....	.....	.....	.....	.....	.....
Corn, canned....do....	.....	15.7	15.4	15.7	17.9	16.6	15.9	15.9	.....	.....	.....	.....	.....	.....	.....
Peas, canned....do....	.....	17.7	17.4	18.0	18.5	17.7	17.0	16.7	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned ....No. 2 can..	.....	13.6	12.9	12.9	13.9	12.2	12.2	11.7	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated ....pound..	5.4	6.5	10.2	10.4	7.7	6.7	7.4	7.1	20	89	93	43	24	37	31
Tea....do....	54.3	67.5	68.9	70.9	75.1	76.1	77.6	77.4	24	27	31	38	40	43	43
Coffee....do....	29.8	35.6	37.9	40.8	52.3	51.3	49.3	48.8	19	27	37	76	72	65	64
Prunes....do....	.....	19.2	19.8	17.8	17.3	17.1	15.8	13.5	.....	.....	.....	.....	.....	.....	.....
Raisins....do....	.....	24.6	18.4	15.7	14.6	14.6	14.3	13.6	.....	.....	.....	.....	.....	.....	.....
Bananas....dozen..	.....	36.9	36.7	39.0	37.6	35.3	34.1	33.8	.....	.....	.....	.....	.....	.....	.....
Oranges....do....	.....	53.9	47.9	38.3	48.3	47.8	46.9	52.9	.....	.....	.....	.....	.....	.....	.....
Weighted food index[1]..	.....	.....	.....	.....	.....	.....	.....	.....	43.1	46.4	48.2	55.9	64.9	58.7	56.1

[1] Beginning with January, 1921, the index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Index Numbers of Retail Prices of Food in the United States

IN TABLE 3 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1927,[2] and by months for 1927, and for January through March, 1928. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1926 was 162.6, which means that the average money price for the year 1926 was 62.6 per cent higher than the average money price for the year 1913. As compared with the relative price, 159.8 in 1925, the figures for 1926 show an increase of nearly three points, but an increase of 1.75 per cent in the year.

In the last column of Table 3 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100 are 151.6 for February, 1928, and 151.4 for March, 1928.

The curve shown in the chart on page 172 pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913, 1920 TO 1927, AND BY MONTHS FOR 1927 AND JANUARY THROUGH MARCH, 1928

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1927: January	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April	164.6	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May	166.5	165.5	157.6	146.9	125.6	173.3	176.3	209.3	180.3	156.2	139.4	167.4
June	166.9	165.9	157.1	146.9	125.6	165.2	174.4	206.3	170.4	156.2	135.2	167.4
July	171.7	170.0	160.1	149.4	126.4	166.2	172.6	203.0	167.1	157.3	134.2	167.0
August	172.0	170.9	160.1	149.4	126.4	179.5	172.2	201.9	166.2	158.4	134.2	167.4
September	172.4	170.9	160.6	150.0	128.1	193.8	172.2	200.0	166.2	158.4	139.4	170.6
October	172.0	170.0	161.1	151.9	130.6	197.6	172.6	199.3	167.6	159.6	145.4	173.3
November	171.3	169.5	161.1	153.1	133.9	172.9	171.5	197.0	167.1	159.6	147.3	174.7
December	172.8	171.3	163.6	156.9	138.0	156.2	167.8	192.9	167.6	160.7	152.5	176.5
1928: January	174.8	173.1	165.2	158.8	142.1	149.0	165.2	192.2	172.8	160.7	150.9	177.4
February	176.4	174.4	167.2	160.6	144.6	140.5	161.9	190.3	174.6	160.7	147.0	177.4
March	176.8	175.3	167.2	161.9	146.3	136.2	159.3	187.7	174.6	159.6	149.6	173.8

[2] For index numbers of each month, January, 1913, to December, 1926, see Bulletin No. 396, pp. 44-61; Bulletin No. 418, pp. 38-51; and Bulletin No. 445, pp. 36-49.

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1927, AND BY MONTHS FOR 1927 AND JANUARY THROUGH MARCH, 1928—Continued

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles[1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1927: January	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4
June	119.0	97.1	166.1	166.7	173.3	123.0	352.9	132.7	142.1	160.7	158.5
July	119.0	107.0	166.1	166.7	173.3	123.0	247.1	134.5	142.5	159.7	153.4
August	119.6	121.7	166.1	169.7	173.3	123.0	200.0	132.7	142.6	159.1	152.4
September	121.5	141.2	166.1	166.7	173.3	121.8	188.2	130.9	141.9	158.7	154.0
October	124.1	164.1	166.1	166.7	173.3	120.7	176.5	130.9	142.5	159.1	156.1
November	123.4	178.8	166.1	163.6	173.3	119.5	176.5	130.9	142.5	160.4	156.5
December	121.5	172.8	164.3	163.6	173.3	118.4	176.5	129.1	142.1	161.4	155.9
1928: January	119.6	162.0	164.3	160.6	173.3	117.2	176.5	129.1	142.3	162.8	155.1
February	115.8	124.9	164.3	160.6	173.3	117.2	176.5	129.1	142.1	163.1	151.6
March	112.7	107.2	162.5	160.6	173.3	116.1	200.0	129.1	142.3	163.8	151.4

[1] 22 articles in 1913–1920; 43 articles in 1921–1928.

TREND OF RETAIL PRICES OF FOOD

[1913=100]

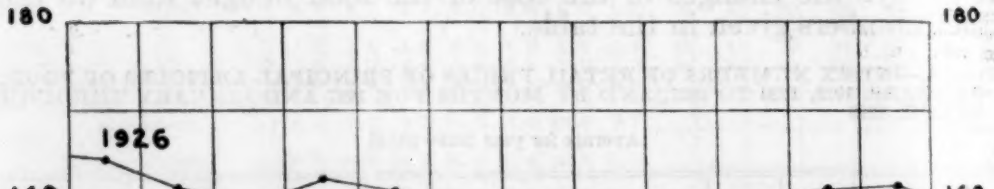


TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928

[Exact comparisons of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak[1]—pound	40.8	42.0	42.4	37.9	43.1	42.8	41.4	43.0	43.0	165.6	73.2	172.1	48.9	53.9	53.5
Round steak—do	36.8	38.3	38.3	35.3	39.2	39.0	35.7	37.8	37.3	50.4	55.3	55.4	41.7	47.5	47.2
Rib roast—do	32.5	33.1	32.6	29.5	33.0	32.8	28.5	30.5	30.5	37.8	42.7	39.5	36.9	41.6	40.6
Chuck roast—do	24.6	25.6	26.4	21.9	24.9	24.9	23.2	24.5	24.7	27.7	31.1	30.8	26.9	31.8	31.8
Plate beef—do	13.8	16.9	16.8	15.1	18.0	18.4	15.0	15.5	16.2	18.9	21.9	21.3	11.8	13.5	13.4
Pork chops—do	35.0	29.9	28.5	35.3	26.3	25.0	35.6	29.1	27.8	39.1	30.5	29.8	38.7	31.8	31.5
Bacon, sliced—do	46.2	43.3	41.9	42.8	39.5	38.0	47.8	43.0	40.5	47.2	42.5	41.4	53.6	49.1	49.4
Ham, sliced—do	58.1	50.8	53.3	57.6	52.7	51.2	55.6	51.3	49.3	61.1	55.1	54.4	60.0	55.0	54.6
Lamb, leg of—do	41.0	37.9	39.5	37.9	36.9	37.8	40.0	38.5	39.4	39.4	38.2	38.5	39.5	36.7	37.7
Hens—do	37.8	36.6	35.0	40.3	39.4	39.5	36.8	33.5	31.8	40.0	40.2	39.4	41.4	40.1	40.2
Salmon, canned[2]—do	33.4	34.0	34.3	29.8	33.3	33.7	35.1	37.1	36.3	32.5	34.4	33.7	32.0	32.9	32.9
Milk, fresh—quart	18.0	18.0	18.0	14.0	14.0	14.0	17.0	18.7	18.7	14.4	15.5	15.5	16.0	16.0	16.0
Milk, evaporated 15–16 oz. can	13.3	13.8	13.1	11.2	11.3	11.1	12.5	12.3	12.1	12.1	12.0	11.8	11.5	11.6	11.5
Butter—pound	60.5	57.0	58.2	63.8	61.2	60.9	62.1	57.9	58.2	61.0	58.7	58.8	60.9	57.2	57.5
Oleomargarine (all butter substitutes)—pound	27.2	27.2	27.1	29.6	27.5	27.5	33.4	32.5	30.9	30.0	28.4	28.7	28.9	25.8	25.5
Cheese—do	36.5	37.8	36.6	35.2	38.1	36.9	36.8	38.6	36.7	38.2	40.6	40.5	39.6	43.5	44.1
Lard—do	18.7	17.9	16.7	17.5	16.8	16.3	20.5	18.0	17.5	19.9	18.6	18.0	19.0	17.7	17.3
Vegetable lard substitute—do	21.0	21.5	21.8	23.0	23.2	23.1	22.6	19.3	19.7	24.5	24.9	25.0	25.6	25.5	25.5
Eggs, strictly fresh—dozen	33.1	43.3	33.9	33.8	46.3	34.5	33.0	39.7	34.6	52.8	59.9	54.3	49.3	57.4	52.0
Bread—pound	10.8	10.8	10.8	9.9	9.6	9.6	10.4	10.1	10.1	8.8	8.6	8.6	8.9	8.8	8.8
Flour—do	6.5	6.3	6.4	5.2	5.0	5.0	6.7	6.5	6.6	6.1	5.8	5.8	5.6	5.4	5.4
Corn meal—do	3.7	4.0	4.1	4.0	4.0	4.0	4.0	4.1	4.1	6.5	6.7	6.6	7.7	7.3	7.2
Rolled oats—do	9.6	9.6	9.6	8.1	8.2	8.1	10.0	9.6	9.8	9.1	9.0	9.0	8.5	8.5	8.6
Corn flakes, 8-oz. pkg	11.5	9.7	9.7	9.9	9.1	9.1	12.1	10.1	10.0	10.9	9.8	9.7	10.3	9.6	9.6
Wheat cereal 28-oz. pkg	26.4	26.6	26.6	24.4	24.4	24.4	27.1	27.4	27.4	25.2	24.9	24.5	24.7	24.6	24.5
Macaroni—pound	21.4	21.3	21.3	19.0	19.5	19.1	18.8	19.0	18.1	22.9	21.9	21.6	22.6	22.4	22.3
Rice—do	9.8	8.9	8.9	9.5	9.5	9.5	10.8	10.3	9.7	12.0	11.8	11.4	11.5	10.5	10.7
Beans, navy—do	10.0	10.7	11.2	8.1	10.0	10.7	10.2	10.5	11.1	9.7	10.4	10.7	9.7	9.7	10.3
Potatoes—do	4.7	4.1	4.4	3.7	3.0	3.2	5.1	4.3	4.4	3.3	3.2	3.7	3.4	3.0	3.4
Onions—do	7.9	7.4	8.3	6.0	5.0	6.2	7.4	6.9	7.3	6.0	5.3	7.1	5.4	5.2	5.7
Cabbage—do	5.2	5.0	5.1	6.3	4.6	5.6	5.8	5.4	5.3	6.9	6.0	6.8	6.8	5.5	5.4
Beans, baked No. 2 can	11.5	10.7	11.0	10.5	10.9	10.9	11.7	11.2	11.2	13.3	12.7	12.6	11.1	11.5	11.4
Corn, canned—do	17.8	17.5	17.5	14.6	14.8	15.0	17.7	17.0	16.9	18.3	17.5	17.9	19.6	19.1	19.1
Peas, canned—do	19.2	18.9	18.9	14.5	14.6	14.6	20.8	19.8	19.3	20.4	20.0	19.5	21.3	21.0	21.5
Tomatoes, canned—do	11.8	10.3	10.3	10.7	10.3	10.5	11.6	10.3	10.4	12.7	11.8	12.1	13.1	13.4	13.5
Sugar—pound	7.8	7.4	7.5	6.5	6.5	6.4	7.9	7.4	7.4	7.4	7.1	7.1	7.2	6.9	6.9
Tea—do	105.9	106.1	104.3	73.4	72.8	71.9	96.2	99.7	99.7	75.6	72.3	72.4	60.2	61.0	61.0
Coffee—do	51.3	48.8	48.8	44.5	44.3	44.2	53.1	50.7	50.5	54.6	53.0	53.1	47.9	46.9	47.3
Prunes—do	17.2	14.1	14.1	13.2	11.5	11.5	18.6	16.5	16.1	15.3	13.3	12.9	15.3	14.5	15.1
Raisins—do	16.5	15.4	15.4	12.9	12.7	12.9	15.0	15.0	14.9	13.5	12.7	12.7	14.4	14.1	14.0
Bananas—dozen	29.5	28.8	29.4	25.9	25.2	25.5	37.5	37.7	38.2	48.3	48.0	47.0	34.3	39.2	37.5
Oranges—do	36.3	42.3	44.5	41.3	47.5	50.5	41.2	48.2	52.3	48.8	52.9	55.8	51.5	56.7	61.5

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[2] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.			Chicago, Ill.			Cincinnati, Ohio		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	40.7	44.8	44.3	32.3	34.5	34.7	33.2	33.2	34.3	44.8	48.7	48.0	37.0	41.3	41.0
Round steak....do....	34.6	37.7	37.4	29.2	33.2	32.9	30.7	30.5	32.5	36.0	39.2	38.8	33.7	37.3	36.8
Rib roast.....do....	30.4	33.4	33.2	27.6	29.9	30.4	26.8	28.3	28.5	35.1	37.7	37.7	30.8	33.4	33.8
Chuck roast....do....	24.0	26.8	26.7	19.0	22.5	23.0	20.5	20.7	22.3	25.4	28.6	28.4	22.6	24.5	24.6
Plate beef.....do....	14.5	17.1	17.1	13.1	15.7	16.3	15.0	15.1	16.3	15.2	17.7	17.5	15.8	18.3	18.4
Pork chops.....do....	38.4	31.4	30.8	35.2	30.5	28.9	35.2	30.5	30.7	35.4	27.8	26.5	34.3	24.8	26.2
Bacon, sliced....do....	44.5	39.6	39.4	55.8	51.7	49.6	42.4	37.6	36.8	52.4	48.2	46.8	42.5	37.8	37.8
Ham, sliced....do....	55.1	48.6	48.6	60.5	56.7	52.5	52.4	45.3	44.5	57.6	51.0	50.2	56.7	49.7	48.2
Lamb, leg of....do....	34.6	34.1	35.6	36.2	35.6	34.8	41.9	40.7	41.4	38.4	37.6	38.1	36.1	39.8	38.2
Hens.....do....	40.6	39.3	39.7	37.7	36.1	36.2	38.1	35.5	37.0	39.6	38.4	38.5	41.2	39.1	38.4
Salmon, canned[1]do....	31.9	34.7	34.5	31.1	32.7	32.4	29.4	34.2	34.6	35.7	37.4	36.7	30.9	36.1	36.1
Milk, fresh.....quart..	13.0	13.0	13.0	14.0	14.0	14.0	19.0	19.0	19.0	14.0	14.0	14.0	13.3	14.0	14.0
Milk, evaporated 15–16 oz. can..	11.3	11.4	10.7	10.9	10.9	10.7	11.9	11.8	11.6	11.1	11.3	11.0	10.9	11.1	10.9
Butter.....pound..	59.5	56.0	57.9	56.3	53.7	52.8	58.2	55.1	55.6	58.4	54.1	56.3	59.8	57.3	60.8
Oleomargarine (all butter substitutes) .....pound..	29.3	27.4	27.6	.....	.....	.....	31.9	29.2	27.4	27.2	26.9	27.0	27.8	28.2	27.9
Cheese.....do....	38.5	39.8	39.6	36.5	36.6	37.7	35.9	36.7	35.4	42.0	43.7	42.7	36.7	40.3	39.8
Lard.....do....	18.2	17.4	16.9	23.3	22.2	21.8	20.7	20.2	18.8	19.1	18.7	17.9	16.9	15.9	16.0
Vegetable lard substitute.....pound..	26.6	25.9	25.6	29.5	30.4	30.3	22.7	21.6	21.6	26.7	26.5	26.3	25.6	25.7	25.6
Eggs, strictly fresh .....dozen..	37.2	47.3	42.1	40.4	45.8	37.3	33.8	42.3	34.3	38.8	47.6	38.6	29.5	39.9	35.6
Bread.....pound..	8.7	8.7	8.7	9.8	9.8	9.8	11.0	10.9	10.9	9.9	9.6	9.6	9.0	8.1	7.6
Flour.....do....	5.0	4.8	4.8	5.3	5.4	5.4	6.9	6.8	6.7	5.1	4.8	4.7	5.8	5.5	5.4
Corn meal.....do....	5.0	5.1	5.1	5.8	6.2	6.2	3.9	3.9	3.9	6.8	6.8	6.8	4.1	4.4	4.5
Rolled oats.....do....	8.8	8.8	8.8	7.4	7.9	8.0	9.5	9.5	9.5	8.7	8.7	8.6	8.7	8.9	8.8
Corn flakes..8-oz. pkg.	10.2	9.3	9.4	12.2	10.3	10.5	11.8	9.9	9.9	10.0	9.5	9.4	10.4	9.6	9.5
Wheat cereal .....28-oz. pkg..	24.6	25.0	24.8	28.5	28.3	28.7	26.3	25.6	25.6	25.6	25.7	25.4	24.8	24.8	24.8
Macaroni.....pound..	21.3	21.4	21.4	20.4	19.4	19.1	18.6	18.5	18.5	19.3	19.1	18.9	18.5	18.4	18.3
Rice.....do....	10.5	10.1	10.1	11.4	10.7	11.1	7.5	7.2	6.7	11.5	10.5	10.4	10.2	9.5	9.5
Beans, navy....do....	8.5	9.5	10.0	10.2	9.8	10.1	9.8	10.3	11.2	9.4	10.3	10.7	7.6	9.5	10.5
Potatoes.....do....	3.1	2.8	3.2	2.7	1.7	1.7	4.0	3.4	3.9	3.4	2.9	3.2	3.9	3.0	3.4
Onions.....do....	6.1	5.9	7.0	7.3	5.9	5.6	6.3	5.7	7.4	6.1	5.5	6.3	5.2	5.2	6.6
Cabbage.....do....	4.6	4.2	5.4	6.8	6.2	6.1	4.4	4.3	4.8	5.6	5.6	5.4	5.3	5.0	5.5
Beans, baked .....No. 2 can..	9.9	9.9	9.9	14.0	13.5	13.5	9.7	9.8	9.8	12.9	12.8	12.4	10.3	10.3	10.4
Corn, canned....do....	16.4	15.8	15.8	14.9	15.6	14.3	14.4	14.8	15.0	16.7	16.0	16.3	15.5	15.3	15.7
Peas, canned....do....	15.9	16.1	16.1	14.8	14.1	13.6	17.5	16.1	16.5	17.4	16.6	16.8	17.2	17.1	16.8
Tomatoes, canned .....No. 2 can..	13.3	12.7	12.6	13.3	12.8	12.8	10.5	9.8	9.8	13.5	13.9	13.7	12.2	11.9	11.5
Sugar.....pound..	7.2	6.8	6.7	8.6	8.6	8.4	7.0	6.7	6.7	7.2	6.9	6.9	7.5	7.4	7.3
Tea.....do....	70.3	66.6	68.5	81.3	82.0	82.4	76.9	80.7	80.7	72.6	69.5	69.5	77.0	79.6	80.1
Coffee.....do....	47.6	46.2	46.3	55.1	54.4	54.4	46.9	44.4	44.4	49.5	48.8	47.7	44.1	44.1	44.2
Prunes.....do....	14.5	13.4	13.0	14.9	14.5	14.7	14.2	10.8	10.3	18.5	15.2	15.3	16.5	13.7	13.3
Raisins.....do....	13.7	12.9	13.0	15.0	14.6	14.6	14.3	12.9	12.9	15.3	14.3	14.0	14.1	14.2	14.2
Bananas.....dozen..	41.8	42.6	41.8	[2]15.3	[2]14.0	[2]13.6	27.5	26.0	26.0	38.9	40.4	40.4	35.5	41.1	36.7
Oranges.....do....	53.9	56.5	56.9	47.9	51.7	52.2	28.5	34.2	38.8	51.6	54.9	56.8	40.3	48.3	50.7

[1] Per pound. [2] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	39.0	43.0	42.9	39.1	43.5	44.2	36.7	39.1	40.0	32.8	36.8	37.2	41.0	46.0	46.3
Round steak....do....	33.2	36.7	36.5	34.3	37.9	38.2	33.3	35.0	37.3	29.7	33.6	34.2	34.7	38.4	38.1
Rib roast....do....	28.9	30.5	30.1	30.7	32.4	32.8	27.5	29.7	32.5	23.7	27.4	27.6	30.9	34.3	33.5
Chuck roast....do....	23.4	27.0	26.8	24.7	27.1	27.3	22.5	25.0	26.2	18.9	22.2	22.5	23.0	26.4	26.2
Plate beef....do....	13.6	17.1	17.8	15.7	18.8	18.8	17.9	19.5	19.6	11.4	13.6	13.9	14.3	16.6	16.8
Pork chops....do....	37.2	28.7	27.8	34.5	28.1	27.8	35.8	32.7	31.5	33.7	27.6	25.8	38.0	28.1	27.7
Bacon, sliced....do....	48.7	42.9	41.8	50.5	45.0	44.6	47.1	44.8	45.9	50.3	44.0	43.0	50.5	45.3	44.9
Ham, sliced....do....	57.4	52.0	51.7	56.9	50.7	50.0	59.9	53.6	53.1	57.6	41.9	51.4	60.2	54.2	53.9
Lamb, leg of....do....	36.7	35.8	36.9	43.7	43.0	45.3	45.0	43.6	43.9	35.5	34.9	36.5	39.4	38.7	38.9
Hens....do....	39.6	39.5	38.5	39.6	37.7	38.0	32.6	32.5	32.3	33.3	30.4	30.8	40.5	38.9	39.1
Salmon, canned[1] do....	32.9	35.3	35.6	35.4	37.2	37.1	34.8	39.3	38.8	33.8	37.4	38.1	33.3	36.1	36.1
Milk, fresh....quart..	13.7	13.7	13.7	12.0	12.0	10.5	13.0	13.0	12.7	12.0	12.0	12.0	14.0	14.0	14.0
Milk, evaporated 15–16 oz. can..	11.3	11.4	11.1	11.5	11.5	11.2	13.3	13.5	13.4	10.3	10.6	10.1	11.2	11.0	10.9
Butter....pound..	62.5	58.3	61.3	58.8	55.3	55.8	56.1	57.6	58.4	54.3	52.6	51.3	60.2	56.8	59.1
Oleomargarine (all butter substitutes) ....pound..	29.9	28.6	28.5	28.6	27.4	27.3	30.5	29.0	28.6	24.8	24.3	24.3	28.7	25.8	25.7
Cheese....do....	38.7	40.4	40.1	36.9	38.2	37.0	37.4	39.0	38.3	38.3	39.8	39.2	37.9	40.5	40.6
Lard....do....	20.8	19.9	19.3	16.8	15.6	14.5	21.2	22.1	21.8	20.3	18.2	17.8	19.0	18.0	17.3
Vegetable lard substitute....pound..	26.8	26.8	26.8	26.0	26.2	26.5	23.4	24.4	23.9	22.3	21.1	20.6	27.1	26.8	26.5
Eggs, strictly fresh ....dozen..	36.3	45.6	39.4	28.6	38.1	32.4	27.9	35.6	32.0	33.4	31.6	31.1	33.7	43.6	38.3
Bread....pound..	7.8	7.7	7.7	8.0	7.2	7.2	9.5	9.3	9.3	8.1	8.2	8.1	8.5	8.1	8.0
Flour....do....	5.5	5.4	5.4	5.4	4.9	4.9	5.5	5.6	5.6	4.2	4.4	4.4	5.4	5.0	5.1
Corn meal....do....	5.4	5.4	5.6	3.8	3.9	3.9	4.3	4.4	4.4	4.4	4.5	4.5	5.8	5.9	6.1
Rolled oats....do....	9.5	9.4	9.3	9.4	9.6	9.6	10.3	10.6	10.1	7.8	7.4	7.5	9.3	9.5	9.4
Corn flakes..8-oz. pkg..	11.3	10.0	10.0	10.7	10.2	10.1	11.6	10.5	10.4	10.8	9.5	9.5	10.5	9.9	9.8
Wheat cereal ....28-oz. pkg..	25.2	25.9	26.2	26.0	26.1	26.4	27.8	27.7	27.6	24.8	24.6	24.6	26.0	26.0	26.2
Macaroni....pound..	21.9	21.4	21.4	20.6	19.4	19.6	22.1	22.0	21.7	19.6	19.5	19.3	21.9	22.1	22.1
Rice....do....	11.2	10.6	10.4	12.7	11.6	11.6	11.4	11.9	11.6	10.1	9.3	9.3	12.0	11.5	11.4
Beans, navy....do....	8.5	9.3	10.3	7.9	9.2	10.2	10.6	11.7	12.1	9.6	10.2	10.9	8.0	9.5	10.5
Potatoes....do....	3.9	3.1	3.6	3.3	2.7	3.3	5.1	4.4	4.9	3.4	2.0	2.7	2.9	2.4	2.9
Onions....do....	5.3	4.6	6.3	5.7	5.1	7.2	8.1	6.6	7.3	4.4	4.3	4.7	5.3	4.6	5.8
Cabbage....do....	5.6	4.5	5.4	5.2	4.2	5.3	5.3	5.0	4.8	4.2	4.2	4.8	5.3	4.4	5.3
Beans, baked ....No. 2 can..	13.1	12.6	13.0	12.5	11.8	11.9	13.8	12.4	12.2	11.4	11.4	11.2	11.0	11.1	11.1
Corn, canned....do....	16.9	16.9	17.1	14.7	14.5	14.5	18.4	18.7	18.6	13.3	14.1	14.4	16.0	15.5	15.6
Peas, canned....do....	18.4	17.6	17.6	15.1	14.8	14.8	22.0	21.6	22.2	15.1	15.3	15.2	16.7	16.3	16.3
Tomatoes, canned ....No. 2 can..	14.1	14.0	13.8	13.0	12.6	12.7	13.1	12.5	11.9	12.4	11.9	11.8	12.7	12.3	12.2
Sugar....pound..	7.8	7.6	7.6	7.8	7.7	7.6	8.1	8.0	7.6	7.7	7.5	7.5	7.6	7.4	7.4
Tea....do....	81.6	80.0	80.6	89.3	87.9	86.7	106.8	107.1	105.6	68.8	69.4	69.6	73.8	75.2	75.2
Coffee....do....	53.2	50.8	51.7	50.0	48.3	48.5	59.7	57.7	57.2	50.2	49.5	49.6	50.8	47.0	47.7
Prunes....do....	15.8	14.0	15.7	17.2	16.1	15.6	21.0	17.5	16.6	16.5	14.2	14.3	17.5	14.0	14.3
Raisins....do....	14.7	13.6	13.2	14.3	13.9	14.1	15.8	15.4	15.3	14.3	13.2	13.2	14.8	13.7	13.5
Bananas....dozen..	[1]10.3	[1]11.1	[1]10.7	38.6	37.5	36.0	36.3	36.3	37.5	[1]11.8	[1]11.8	[1]8.8	36.3	35.7	34.2
Oranges....do....	51.5	53.8	57.1	51.5	50.9	56.7	52.9	52.4	50.3	48.7	50.1	50.1	55.1	54.0	56.5

[1] Per pound. [2] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak...pound	[3] 60.5	[3] 68.4	[3] 67.9	34.3	36.3	37.0	37.6	41.9	41.7	35.8	36.2	38.1	37.0	40.5	41.7
Round steak....do	45.2	52.1	52.1	32.9	36.0	36.3	36.2	39.6	40.2	31.3	31.5	34.1	32.7	35.5	36.6
Rib roast.....do	31.8	35.6	35.6	27.1	28.5	29.7	29.1	30.3	30.5	27.9	27.7	28.1	26.7	27.9	28.5
Chuck roast.....do	22.8	27.5	26.7	20.9	23.0	23.9	24.7	26.4	26.5	20.4	20.4	21.5	19.3	22.3	22.3
Plate beef.....do	13.4	17.3	17.7	17.5	20.3	21.2	15.7	17.1	17.8	12.3	13.3	13.5	13.5	16.0	16.5
Pork chops.....do	37.1	28.7	29.2	35.1	29.0	27.5	33.7	27.8	27.3	35.8	28.7	26.5	33.6	25.4	24.3
Bacon, sliced....do	44.9	41.3	41.6	48.1	42.1	41.8	45.0	40.0	40.2	45.8	38.6	38.0	46.1	42.2	42.8
Ham, sliced.....do	56.3	50.2	50.0	54.6	47.2	46.2	57.1	50.4	51.3	54.1	45.8	44.2	54.8	49.1	49.1
Lamb, leg of....do	41.2	40.7	40.3	33.6	32.5	33.3	40.8	40.0	40.0	35.9	37.6	37.7	34.7	34.8	34.9
Hens.....do	43.2	42.5	42.8	35.2	32.4	32.1	37.2	38.2	40.4	39.0	33.5	33.7	34.0	33.4	33.3
Salmon, canned [4] do....	35.1	36.0	36.4	31.3	34.3	34.5	32.9	36.0	35.9	33.2	34.6	34.0	35.2	37.2	37.2
Milk, fresh.....quart	14.0	15.0	14.7	15.6	15.6	15.6	12.0	12.0	12.0	22.3	20.3	20.3	13.0	13.0	13.0
Milk, evaporated 15-16-oz. can	12.5	12.5	12.6	11.4	11.5	10.9	10.7	10.8	10.7	11.6	11.7	11.2	11.5	11.6	11.3
Butter.....pound	57.6	56.1	56.5	54.2	55.0	55.9	59.9	56.0	57.3	60.5	54.9	57.0	58.4	54.9	56.7
Oleomargarine (all butter substitutes) .....pound	30.8	27.1	27.4	29.4	25.8	25.4	29.8	29.7	29.3	30.5	30.8	31.0	26.0	25.7	25.7
Cheese.....do	39.2	41.9	41.5	33.7	36.0	33.2	38.0	40.0	39.2	33.6	36.9	35.5	36.8	38.7	37.8
Lard.....do	18.1	17.5	16.8	19.3	19.9	19.7	17.4	15.3	15.0	22.1	18.6	17.9	19.1	17.5	17.3
Vegetable lard substitute.....pound	26.6	26.6	26.6	16.6	15.9	15.4	27.1	26.5	26.9	21.8	21.9	21.9	27.2	27.0	26.8
Eggs, strictly fresh .....dozen	48.4	55.9	46.2	26.0	29.4	29.0	28.6	35.9	32.4	33.3	38.1	33.3	31.3	37.0	35.0
Bread.....pound	9.2	8.8	8.7	8.8	8.7	8.5	8.1	8.0	8.0	11.1	10.1	10.1	9.6	9.8	9.8
Flour.....do	5.8	5.7	5.7	5.3	5.2	5.2	5.6	5.5	5.5	6.5	6.5	6.5	4.7	5.0	5.0
Corn meal.....do	6.7	6.9	7.0	3.9	4.1	4.0	4.2	4.0	4.0	4.0	4.1	4.2	4.8	5.3	5.3
Rolled oats.....do	9.5	9.6	9.4	8.9	8.7	8.7	8.3	8.7	8.7	9.0	9.6	9.1	9.2	9.0	8.8
Corn flakes 8-oz. pkg.	11.3	10.0	10.2	11.1	9.1	9.1	10.1	9.4	9.4	10.3	9.9	9.8	11.1	9.8	9.9
Wheat cereal 28-oz. pkg.	25.3	25.3	25.3	25.4	25.5	25.2	24.8	25.7	26.6	24.6	24.2	24.2	26.4	26.9	26.9
Macaroni.....pound	24.5	23.4	23.3	18.6	18.1	17.9	19.2	19.1	18.8	18.6	19.1	18.9	19.7	19.9	20.2
Rice.....do	11.6	11.3	11.2	8.9	7.3	7.5	11.2	10.5	10.2	9.4	7.5	8.1	9.5	9.6	9.3
Beans, navy.....do	9.9	10.2	11.2	9.3	10.2	11.1	8.0	10.1	10.7	9.6	10.4	10.8	9.1	10.3	11.1
Potatoes.....do	3.6	3.2	3.7	4.9	4.0	4.2	3.1	2.6	3.1	4.4	3.8	4.1	3.7	2.6	3.2
Onions.....do	6.4	5.2	6.4	7.0	5.1	5.7	5.3	5.3	7.3	7.1	6.5	7.8	6.6	6.3	7.1
Cabbage.....do	6.6	6.9	6.4	4.3	4.8	4.7	5.0	4.1	4.7	4.9	4.1	4.2	4.7	4.1	4.9
Beans, baked .....No. 2 can	12.4	11.9	12.1	11.2	10.5	10.7	9.9	10.2	10.2	10.6	10.7	10.4	12.5	11.8	11.8
Corn, canned....do	16.3	17.3	17.1	14.0	13.9	13.6	14.1	14.0	13.7	17.5	17.8	17.8	14.2	14.2	14.1
Peas, canned....do	18.3	19.5	19.3	13.5	13.5	14.0	13.9	14.2	13.7	17.4	16.6	17.3	14.5	15.4	15.4
Tomatoes, canned .....No. 2 can	13.3	12.3	12.3	11.3	9.8	9.9	12.6	11.8	12.0	10.9	10.0	9.9	11.5	11.5	11.5
Sugar.....pound	7.3	7.3	7.2	7.3	6.9	6.9	7.8	7.3	7.3	7.7	7.4	7.3	7.8	7.5	7.6
Tea.....do	60.8	60.7	60.4	84.3	82.8	82.4	88.8	88.3	87.8	98.8	98.9	98.9	89.4	91.4	91.7
Coffee.....do	51.6	49.8	49.5	42.6	41.9	42.4	49.1	46.4	48.1	49.2	47.5	47.8	51.4	51.0	51.4
Prunes.....do	15.3	14.7	14.1	14.7	12.6	12.8	18.5	14.6	14.6	15.4	15.6	15.4	16.6	13.8	14.4
Raisins.....do	13.9	13.6	13.3	14.4	12.5	12.3	14.7	14.5	14.8	14.6	15.0	15.0	14.5	14.0	14.5
Bananas.....dozen	[2] 10.5	[2] 10.2	[2] 10.2	27.7	26.7	25.8	30.5	31.1	30.6	26.7	28.6	29.3	[2] 10.4	[2] 11.1	[2] 10.3
Oranges.....do	47.3	53.3	54.5	44.8	46.4	42.0	45.3	51.4	51.2	23.4	39.2	46.4	49.3	52.5	50.5

[2] Per pound.
[3] The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[4] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	36.0	38.8	40.0	37.2	41.6	41.1	35.4	39.3	39.3	[1] 56.8	[1] 60.7	[1] 62.2	35.0	39.8	40.5
Round steak....do....	32.7	35.6	36.8	30.3	34.2	34.3	31.9	36.4	36.4	46.5	46.5	47.5	32.5	35.8	36.2
Rib roast.....do....	27.8	30.8	30.8	29.6	32.4	33.0	25.5	29.1	28.9	27.9	30.9	30.5	26.0	28.8	28.8
Chuck roast....do....	21.4	23.5	24.5	20.8	24.4	24.6	20.2	23.5	23.8	22.9	26.1	25.8	19.2	22.7	23.1
Plate beef.....do....	16.4	19.0	20.2	14.5	17.6	18.0	16.3	19.4	19.2	16.3	18.6	19.0	15.5	18.4	18.3
Pork chops.....do....	33.6	27.1	26.5	43.9	34.0	34.0	32.6	25.2	24.2	35.9	27.8	25.9	31.3	24.1	23.4
Bacon, sliced....do....	50.0	41.8	42.4	57.2	50.4	49.1	48.6	45.0	43.4	41.9	36.1	36.2	41.0	36.1	36.4
Ham, sliced....do....	55.5	48.2	47.4	69.2	64.2	63.7	53.1	48.5	47.3	46.0	42.2	41.5	54.0	48.6	47.1
Lamb, leg of....do....	42.0	37.0	36.7	35.8	37.4	37.4	38.8	36.7	36.7	37.7	36.8	36.8	37.6	35.6	36.1
Hens.....do....	31.3	29.9	29.9	44.3	43.1	43.4	37.9	36.4	35.4	43.9	41.9	42.2	33.5	31.0	30.6
Salmon, canned [4] do....	33.9	35.6	36.1	30.9	33.9	33.6	31.4	35.2	35.2	33.1	35.0	35.0	32.8	32.6	33.1
Milk, fresh.....quart..	15.0	15.0	15.0	15.0	15.0	15.0	13.0	13.0	13.0	13.8	15.0	15.0	15.0	15.0	15.0
Milk, evaporated 15–16 oz. can..	12.1	12.2	11.9	10.2	9.9	10.0	11.8	11.9	11.8	12.6	12.8	12.7	11.0	11.7	11.6
Butter.....pound..	58.8	55.2	56.1	56.0	54.2	53.0	61.3	57.6	58.9	62.0	57.9	59.1	57.5	56.5	57.9
Oleomargarine (all butter substitutes) .....pound..	28.3	28.0	27.5	27.8	25.3	25.4	27.7	27.0	27.0	25.8	24.6	25.6	27.0	24.3	24.3
Cheese.....do....	37.6	40.4	38.8	38.3	38.4	38.8	38.3	40.8	38.1	36.7	39.2	38.9	34.1	37.9	33.9
Lard.....do....	21.7	21.2	21.0	20.8	19.3	18.5	18.0	15.7	15.7	18.9	17.7	17.4	16.1	14.7	14.3
Vegetable lard substitute.....pound..	21.9	20.2	21.3	24.8	23.9	23.7	28.6	28.0	26.7	26.0	26.3	26.5	19.9	22.6	22.5
Eggs, strictly fresh .....dozen..	27.5	33.8	30.1	32.4	33.7	33.8	27.0	38.4	32.8	44.4	56.1	45.1	28.4	35.0	33.3
Bread.....pound..	9.3	9.3	9.3	8.5	8.7	8.7	9.3	9.1	9.1	8.7	8.6	8.6	9.5	9.4	9.5
Flour.....do....	6.3	6.0	6.1	5.4	5.2	5.3	5.8	6.5	6.3	5.8	5.4	5.5	6.1	6.0	6.0
Corn meal.....do....	3.8	3.8	3.8	5.3	5.6	5.7	3.6	4.0	4.1	5.1	5.2	5.2	3.5	3.5	3.7
Rolled oats.....do....	10.3	10.5	10.5	10.0	9.9	10.0	8.6	8.5	8.6	9.0	8.8	9.1	9.1	9.0	9.0
Corn flakes..8-oz. pkg..	11.3	10.3	10.3	10.1	9.4	9.4	10.7	9.6	9.6	11.0	9.5	9.7	10.7	9.8	9.8
Wheat cereal .....28-oz. pkg..	25.9	27.8	27.8	25.1	24.9	25.0	25.7	26.7	27.0	25.8	25.7	25.8	25.2	25.6	25.6
Macaroni.....pound..	20.5	20.4	20.5	18.3	18.3	18.4	18.7	18.7	18.7	23.9	23.6	23.4	18.8	19.5	19.7
Rice.....do....	8.8	8.1	8.1	10.4	9.9	10.0	11.4	10.6	10.8	10.0	9.2	9.2	8.8	8.5	8.9
Beans, navy....do....	9.1	10.5	10.6	9.2	10.2	11.2	7.8	9.9	10.7	9.0	9.5	11.0	8.9	10.2	10.6
Potatoes.....do....	4.6	3.5	4.0	4.5	2.6	3.2	3.6	3.1	3.3	3.1	2.8	3.4	4.2	3.3	3.9
Onions.....do....	6.7	6.1	6.6	6.2	5.4	6.3	5.5	5.7	6.4	5.5	5.0	6.0	6.1	5.2	5.8
Cabbage.....do....	4.5	4.5	5.0	4.2	4.1	3.9	5.7	5.0	5.6	4.1	3.4	4.9	3.8	3.8	4.3
Beans, baked .....No. 2 can..	10.6	10.5	10.5	11.1	10.4	11.0	10.2	10.4	10.4	13.6	13.2	13.2	11.3	11.0	11.1
Corn, canned...do....	16.9	16.8	16.3	15.7	16.0	17.4	15.6	15.3	15.3	16.8	16.1	16.4	14.5	14.8	14.6
Peas, canned....do....	18.8	17.6	17.1	17.5	16.8	16.9	14.6	15.2	15.0	18.7	18.1	18.3	15.2	16.1	16.2
Tomatoes, canned .....No. 2 can..	11.2	10.0	10.0	[4] 15.2	[4] 14.5	[4] 14.8	11.2	10.6	10.5	12.8	12.3	12.3	9.7	9.7	9.7
Sugar.....pound..	8.1	7.7	7.7	7.1	6.8	6.9	7.8	7.4	7.3	7.6	7.3	7.1	7.2	7.0	7.0
Tea.....do....	107.4	107.2	105.4	74.4	72.6	74.0	90.9	92.7	90.5	63.5	64.2	64.1	99.4	97.9	97.9
Coffee.....do....	51.9	53.2	53.3	52.0	52.4	53.3	49.7	49.5	50.2	50.9	50.4	50.7	48.1	48.7	48.4
Prunes.....do....	18.1	15.1	13.8	14.9	12.1	12.1	15.8	14.4	14.3	14.7	12.8	12.6	15.0	13.5	13.7
Raisins.....do....	15.5	15.0	15.0	12.7	11.9	12.2	14.7	14.1	14.1	13.9	13.4	13.4	14.6	14.4	14.5
Bananas.....dozen..	[2] 8.8	[2] 9.3	[2] 8.9	[2] 9.6	[2] 9.6	[2] 9.2	[2] 10.5	[2] 10.0	[2] 9.8	[2] 9.8	[2] 9.5	[2] 9.5	[2] 8.1	[2] 9.1	[2] 8.9
Oranges.....do....	52.9	49.6	51.4	43.1	48.4	43.6	41.3	42.9	45.0	48.9	48.8	53.8	34.8	47.2	49.2

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[2] Per pound.
[4] No. 2½ can.
[5] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	37.4	40.8	40.5	31.4	38.4	38.1	35.0	38.0	38.5	44.7	50.5	50.4	53.7	58.6	58.2
Round steak....do....	33.4	36.5	36.2	28.9	33.4	33.1	34.1	37.5	37.5	42.5	47.6	47.3	43.4	48.3	47.3
Rib roast.....do....	28.3	31.1	30.9	25.1	29.4	29.7	28.6	30.5	30.3	35.0	39.6	39.4	36.0	39.0	38.8
Chuck roast.....do....	24.0	27.1	27.1	20.4	24.8	25.0	23.2	24.0	24.5	23.8	30.1	29.4	26.4	29.3	29.2
Plate beef.....do....	14.7	16.9	17.3	13.0	15.6	15.5	17.7	18.5	20.0	12.8	18.7	18.5	15.6	17.0	17.3
Pork chops.....do....	34.2	26.5	26.5	33.3	29.8	29.7	38.2	34.5	34.5	36.4	30.9	30.0	37.3	29.6	27.9
Bacon, sliced....do....	47.8	43.8	42.3	47.5	46.9	46.4	48.1	43.3	43.1	46.5	43.6	43.3	48.7	44.3	44.8
Ham, sliced.....do....	51.4	46.3	46.0	52.9	46.8	45.9	53.1	49.2	49.2	53.9	52.1	51.5	60.1	56.7	56.1
Lamb, leg of....do....	39.0	37.5	38.0	34.7	34.1	34.8	40.7	39.2	40.0	37.2	37.4	39.0	39.3	38.2	39.3
Hens.....do....	37.0	35.1	35.4	35.1	35.9	35.4	36.8	33.8	33.4	37.5	37.3	37.3	41.8	41.3	41.3
Salmon, canned[1] do....	33.4	34.9	34.8	34.3	36.7	36.7	32.0	34.8	35.8	30.2	33.5	34.5	31.1	35.0	34.6
Milk, fresh.....quart..	11.0	11.0	11.0	11.0	12.0	12.0	18.5	18.0	18.0	15.0	16.0	16.0	16.0	16.0	16.0
Milk, evaporated 15–16 oz. can..	11.0	11.3	11.0	11.6	11.9	11.6	11.6	11.4	11.2	11.2	10.9	10.6	12.1	12.1	12.0
Butter.....pound..	57.5	53.5	56.0	56.0	51.7	55.3	60.8	57.7	59.4	59.9	58.0	59.5	59.7	56.3	56.9
Oleomargarine (all butter substitutes) .....pound..	26.4	26.7	26.6	25.5	25.2	25.5	28.9	29.5	29.1	30.4	30.3	30.1	31.1	30.0	29.4
Cheese.....do....	35.7	38.1	37.5	35.8	37.3	37.3	38.1	38.3	37.8	39.7	39.7	39.0	39.7	40.4	41.3
Lard.....do....	18.9	18.7	18.0	18.3	17.4	17.4	19.3	19.3	18.6	19.2	18.7	17.7	19.1	18.7	18.4
Vegetable lard substitute.....pound..	26.7	26.4	26.4	27.1	27.1	27.3	20.2	20.8	20.6	25.9	25.6	25.6	25.6	26.1	26.1
Eggs, strictly fresh .....dozen..	29.5	38.0	32.9	30.8	38.5	33.3	31.1	32.7	30.2	44.1	54.5	45.6	50.7	63.6	50.9
Bread.....pound..	9.0	8.8	8.8	9.0	8.9	8.9	10.1	10.1	10.1	9.6	9.1	9.1	9.2	9.2	9.2
Flour.....do....	4.9	4.8	4.8	5.2	4.9	5.0	6.3	6.0	6.1	5.5	5.1	5.1	5.5	5.3	5.3
Corn meal.....do....	5.6	5.9	5.8	5.3	5.7	5.7	3.8	4.0	4.0	6.6	6.9	6.9	6.6	6.9	6.9
Rolled oats.....do....	8.4	8.3	8.2	8.1	8.0	8.1	8.5	8.4	8.5	8.3	8.0	8.3	9.2	9.1	9.1
Corn flakes..8-oz. pkg..	10.1	9.4	9.5	10.8	9.7	9.7	11.1	9.5	9.5	10.0	9.2	9.2	10.7	10.0	10.0
Wheat cereal .....28-oz. pkg..	24.4	24.5	24.5	25.6	25.6	25.3	25.3	24.4	24.4	24.1	24.7	24.7	24.8	25.0	24.7
Macaroni.....pound..	17.5	17.7	17.7	18.9	18.5	18.3	20.3	20.9	21.1	20.9	21.4	21.4	22.4	22.3	22.4
Rice.....do....	10.5	10.6	10.2	10.4	9.5	9.6	10.0	8.9	9.3	10.9	9.5	9.0	11.2	10.3	10.2
Beans, navy....do....	8.0	10.1	11.1	9.4	10.4	11.0	8.8	9.6	11.0	9.7	10.0	10.6	9.3	9.9	10.5
Potatoes.....do....	2.7	2.5	2.9	3.0	2.2	2.7	4.8	3.8	4.1	4.1	3.6	3.9	3.6	3.2	3.5
Onions.....do....	5.3	4.7	5.6	5.7	4.9	5.9	6.3	5.2	6.2	6.2	5.3	6.4	6.5	5.5	6.9
Cabbage.....do....	5.0	4.6	5.1	4.6	3.5	5.0	4.1	4.8	4.9	6.7	5.3	5.3	6.4	5.4	5.9
Beans, baked .....No. 2 can..	11.1	11.0	11.3	12.1	12.2	12.3	10.5	10.2	10.2	10.8	10.2	10.3	11.2	11.5	11.5
Corn, canned....do....	15.5	16.1	15.8	14.2	14.4	14.4	17.3	16.0	16.0	15.6	16.2	16.5	18.2	17.8	18.1
Peas, canned....do....	15.5	16.1	15.6	14.3	14.6	14.6	16.4	15.9	15.4	16.6	17.8	18.3	19.3	19.6	19.3
Tomatoes, canned .....No. 2 can..	13.6	13.0	12.9	13.8	13.4	13.0	11.0	10.1	10.2	11.5	10.8	10.5	12.9	12.8	12.8
Sugar.....pound..	7.2	6.8	6.8	7.5	7.2	7.2	7.5	7.0	7.0	6.9	6.5	6.5	7.3	7.0	6.9
Tea.....do....	71.2	72.1	70.6	60.3	61.7	63.2	78.9	78.5	78.5	62.8	58.8	59.3	58.8	59.6	60.3
Coffee.....do....	43.3	44.0	43.8	52.3	51.4	52.0	49.6	48.3	47.9	47.8	48.4	47.8	50.7	51.6	51.9
Prunes.....do....	15.6	13.4	13.8	15.4	13.8	13.8	15.3	12.9	12.9	14.5	12.7	12.6	15.8	13.8	13.2
Raisins.....do....	14.6	14.0	13.6	14.8	14.4	14.3	14.4	13.5	13.4	14.5	13.7	13.8	14.0	13.9	13.7
Bananas.....dozen..	[2] 9.6	[2] 9.7	[2] 9.5	[2] 12.0	[2] 12.0	[2] 11.3	22.8	25.0	24.5	37.5	38.0	38.0	33.8	33.5	33.5
Oranges.....do....	47.9	52.3	53.0	47.1	49.3	52.5	38.3	46.2	52.5	47.1	54.3	54.7	50.0	53.7	55.8

[2] Per pound.

[1] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound	36.6	38.4	38.9	44.3	49.7	49.8	40.0	42.7	43.1	37.0	38.9	38.8	35.5	36.3	36.4
Round steak....do	32.3	33.4	34.7	42.5	47.0	46.7	34.2	37.8	37.4	33.8	36.2	36.6	33.9	34.8	35.0
Rib roast.....do	30.6	32.8	33.3	38.5	42.7	42.7	31.2	33.2	33.2	26.0	26.8	26.7	25.5	26.0	25.5
Chuck roast....do	21.1	22.4	23.7	24.5	28.9	27.7	23.3	24.1	24.6	22.1	23.0	23.0	21.5	23.5	23.2
Plate beef.....do	18.3	19.4	19.2	19.1	23.9	23.3	16.2	17.0	17.2	13.2	14.4	14.5	14.3	16.1	16.8
Pork chops.....do	37.8	30.5	29.8	39.7	34.4	34.1	35.5	29.2	28.6	35.2	27.2	25.4	33.7	25.4	24.8
Bacon, sliced....do	49.9	41.0	40.6	49.3	45.0	45.2	43.5	42.6	42.2	50.6	45.9	44.4	50.4	44.2	43.3
Ham, sliced.....do	54.6	47.1	47.7	61.4	55.6	54.8	46.5	45.0	45.6	58.2	46.8	46.8	57.7	47.7	48.8
Lamb, leg of....do	40.1	38.6	39.3	38.1	36.2	36.9	40.0	39.7	40.0	36.6	35.9	36.2	38.6	36.7	37.2
Hens.....do	38.8	36.0	34.9	39.9	39.4	39.5	39.4	37.9	36.5	32.9	31.1	31.3	35.9	32.7	32.9
Salmon, canned [1] do	37.8	36.5	37.9	29.3	34.3	34.4	33.7	36.6	35.9	35.4	35.8	35.9	35.1	35.9	35.5
Milk, fresh....quart	14.0	14.0	14.0	15.0	16.0	15.0	17.5	18.0	18.0	11.3	11.0	10.3	13.0	13.0	13.0
Milk, evaporated 15–16 oz. can	11.1	11.1	10.9	11.0	11.1	10.7	11.2	11.7	11.4	11.7	11.8	11.4	11.3	11.3	11.2
Butter.....pound	59.8	57.5	58.2	59.8	56.9	57.9	59.9	59.9	59.8	55.8	53.9	52.9	56.9	51.6	53.7
Oleomargarine (all butter substitutes) .....pound	29.0	29.1	29.2	29.7	27.7	27.8	28.1	24.5	25.0	26.1	25.8	25.3	28.4	28.4	28.0
Cheese.....do	37.5	40.4	39.0	38.2	40.3	40.4	34.8	37.4	35.9	37.0	38.3	37.2	37.5	38.9	37.4
Lard.....do	19.8	18.1	17.0	20.1	19.2	18.9	18.6	17.9	17.5	21.8	18.6	18.4	19.5	17.9	17.8
Vegetable lard substitute.....pound	19.5	19.5	19.4	26.2	25.8	25.8	21.7	22.4	22.4	26.6	25.2	25.5	27.1	27.1	27.7
Eggs, strictly fresh .....dozen	35.8	38.2	35.3	44.7	54.2	46.8	34.0	45.1	33.6	28.9	34.0	31.3	27.8	36.5	31.6
Bread.....pound	8.8	8.7	8.7	9.7	9.1	8.8	9.9	9.9	9.9	10.1	9.7	9.6	10.0	10.0	10.0
Flour.....do	6.8	6.6	6.6	5.5	5.2	5.1	5.8	5.5	5.5	4.6	4.3	4.3	5.4	5.1	5.0
Corn meal.....do	4.1	4.2	4.1	6.6	6.6	6.7	4.3	4.6	4.7	4.8	4.5	4.5	4.8	4.8	4.9
Rolled oats.....do	9.0	8.8	8.8	8.7	8.6	8.7	9.1	8.5	8.6	10.2	10.0	9.9	8.9	9.0	9.0
Corn flakes 8-oz. pkg	10.3	9.6	9.4	10.0	9.2	9.2	10.3	9.7	9.7	12.2	9.9	10.1	11.3	9.7	9.7
Wheat cereal .....28-oz. pkg	24.6	24.9	24.8	23.9	24.1	24.2	24.3	25.0	25.1	28.0	28.0	28.2	26.3	26.3	26.1
Macaroni.....pound	10.5	10.8	10.7	20.9	20.8	20.7	19.3	19.0	19.0	21.2	21.2	20.9	18.7	18.6	19.0
Rice.....do	9.7	9.3	9.4	10.0	10.0	9.8	11.6	11.1	11.1	11.0	11.0	10.8	11.7	10.4	10.6
Beans, navy.....do	8.2	9.3	9.6	9.9	10.9	11.2	8.3	9.1	9.8	10.0	10.0	11.0	8.6	10.1	10.7
Potatoes.....do	4.6	3.6	3.8	4.2	3.6	4.0	4.2	3.9	4.1	3.7	2.4	2.8	3.2	2.4	2.9
Onions.....do	5.3	4.9	5.7	5.8	5.4	6.2	6.4	5.0	5.5	6.7	6.0	6.3	6.6	5.0	5.8
Cabbage.....do	4.0	4.1	3.9	5.9	4.5	6.1	5.1	5.0	5.2	5.1	4.4	5.1	5.6	3.4	4.5
Beans, baked .....No. 2 can	11.0	10.9	10.8	10.6	10.7	11.1	9.7	9.9	9.7	13.2	13.0	13.0	11.1	10.4	10.3
Corn, canned....do	15.2	14.7	15.1	14.3	14.8	15.1	14.6	14.8	14.4	16.2	16.2	16.1	16.2	15.3	15.3
Peas, canned....do	17.5	17.0	16.5	14.7	15.2	15.0	19.5	17.6	16.8	15.3	15.8	15.7	17.2	17.3	17.6
Tomatoes, canned .....No. 2 can	11.5	10.6	10.5	11.2	11.0	11.1	9.9	9.7	9.7	13.2	13.4	13.3	12.5	13.0	12.5
Sugar.....pound	7.0	6.5	6.5	6.7	6.3	6.3	7.0	6.8	6.7	7.9	7.3	7.1	8.4	7.9	8.0
Tea.....do	80.0	79.6	79.4	66.2	68.1	67.1	93.2	96.7	95.4	79.4	77.1	77.5	71.7	68.2	67.2
Coffee.....do	35.2	35.3	35.4	46.2	46.8	46.7	50.2	49.8	50.2	53.6	53.7	53.7	50.5	48.6	48.6
Prunes.....do	17.4	13.8	13.9	13.9	12.1	12.4	15.1	13.6	13.7	16.3	14.5	14.2	17.8	16.0	16.0
Raisins.....do	13.8	12.9	12.9	14.1	13.2	13.3	14.4	13.8	13.5	15.6	14.7	14.7	14.5	14.0	13.5
Bananas.....dozen	17.1	16.4	17.1	39.7	39.3	38.5	33.0	34.4	33.9	[2] 1.17	[2] 12.0	[2] 11.2	[2] 11.1	[2] 10.0	[2] 9.8
Oranges.....do	43.5	51.3	52.5	51.1	60.1	62.2	46.7	50.2	59.0	49.1	45.8	49.5	52.7	48.6	50.7

[2] Per pound.

[1] Red.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	[1] 55.2	[1] 59.7	[1] 60.3	45.9	50.3	49.8	[1] 59.0	[1] 65.7	[1] 65.3	29.8	35.1	34.4
Round steak, do	41.9	46.2	46.4	37.7	41.9	41.9	46.2	49.6	48.5	27.2	32.4	32.2
Rib roast, do	36.5	40.6	41.0	34.0	37.2	37.0	29.6	32.9	33.1	26.1	29.8	30.1
Chuck roast, do	26.0	30.9	30.2	25.5	29.4	29.4	21.6	24.3	24.7	19.2	23.9	23.8
Plate beef, do	13.1	18.0	17.9	12.8	17.0	17.0	17.5	19.4	19.2	14.3	18.4	18.6
Pork chops, do	40.4	31.7	31.4	38.6	29.8	29.4	37.0	28.6	27.5	37.5	31.8	30.3
Bacon, sliced, do	47.1	40.5	40.9	52.9	47.5	46.9	45.1	40.4	40.4	54.7	50.6	48.8
Ham, sliced, do	60.5	53.2	52.5	61.8	57.9	56.8	57.1	49.4	49.8	57.1	54.4	53.4
Lamb, leg of, do	40.5	39.3	39.6	40.9	40.0	40.7	37.8	36.4	37.5	36.8	36.9	37.0
Hens, do	41.1	40.5	40.1	44.3	44.0	43.6	42.2	41.2	41.3	36.5	34.2	34.4
Salmon, canned, red, do	29.0	33.0	32.4	30.6	34.4	34.6	30.7	35.9	35.6	34.5	36.1	35.7
Milk, fresh, quart	13.0	13.0	13.0	15.0	14.0	14.0	13.8	15.0	15.0	12.0	12.0	12.0
Milk, evaporated, 15–16 oz. can	11.6	11.7	11.7	11.2	11.0	10.3	12.5	12.6	12.3	10.5	10.4	10.3
Butter, pound	62.9	60.5	60.7	62.5	58.5	60.7	60.8	58.5	58.6	54.8	55.3	55.3
Oleomargarine (all butter substitutes), pound	30.6	28.6	28.6	31.9	28.7	28.6	28.0	26.9	27.3	29.0	25.5	25.5
Cheese, do	39.8	42.9	42.3	38.9	42.0	39.5	37.5	39.7	39.5	37.4	38.6	38.5
Lard, do	18.7	16.8	16.6	19.8	18.4	17.9	18.4	17.8	17.2	22.1	19.9	19.4
Vegetable lard substitute, do	25.7	25.0	25.0	27.7	27.3	27.0	25.7	26.2	26.2	28.8	28.8	28.7
Eggs, strictly fresh, dozen	36.9	51.5	40.3	37.0	47.7	39.1	44.1	55.4	43.6	30.5	34.8	30.4
Bread, pound	9.4	9.4	9.4	9.1	8.6	8.6	10.0	10.1	10.1	9.3	9.2	9.2
Flour, do	5.4	4.8	4.9	5.2	4.9	4.9	5.4	5.3	5.3	5.0	4.8	4.9
Corn meal, do	4.8	5.3	5.1	5.9	5.9	5.7	5.1	5.0	5.0	5.4	6.2	6.2
Rolled oats, do	8.7	8.5	8.4	9.2	9.1	9.0	7.9	8.0	8.1	10.5	10.7	10.7
Corn flakes, 8-oz. pkg.	10.0	9.4	9.4	10.5	9.9	9.8	11.6	9.9	9.9	11.6	9.6	9.6
Wheat cereal, 28-oz. pkg.	24.7	25.0	25.2	25.2	25.2	25.2	25.9	25.6	25.6	26.7	27.2	27.2
Macaroni, pound	20.7	20.8	20.9	23.6	23.1	22.9	24.4	23.9	23.2	18.4	18.3	18.5
Rice, do	11.3	10.9	11.0	12.5	11.1	11.2	12.7	11.9	11.4	10.4	10.2	10.4
Beans, navy, do	9.1	9.9	10.1	8.6	9.7	10.7	9.4	10.4	11.2	9.8	10.0	11.1
Potatoes, do	4.2	3.5	3.9	3.6	3.1	3.6	3.2	3.0	3.4	2.6	2.2	2.2
Onions, do	5.5	4.6	5.8	6.1	5.4	7.3	5.5	5.1	6.6	4.8	4.8	5.1
Cabbage, do	5.2	3.8	5.3	6.2	4.9	6.1	3.3	2.4	2.5	5.1	4.8	5.3
Beans, baked, No. 2 can	10.7	10.8	11.0	12.6	12.4	12.4	15.3	15.2	14.8	13.0	11.7	11.7
Corn, canned, do	14.3	14.4	14.7	16.0	16.3	16.4	15.2	14.4	14.8	19.7	18.4	17.5
Peas, canned, do	15.0	15.5	15.7	17.1	17.2	17.0	18.2	17.5	17.5	19.3	17.5	17.5
Tomatoes, canned, do	12.5	11.5	11.6	12.4	11.7	11.5	12.8	12.4	12.1	[4] 16.9	[4] 16.8	[4] 16.1
Sugar, pound	6.8	6.6	6.5	7.5	7.4	7.3	7.4	7.1	7.1	7.3	7.0	7.0
Tea, do	68.5	68.9	68.5	85.1	82.9	82.5	62.1	62.2	62.2	77.9	80.3	79.9
Coffee, do	43.0	42.6	42.9	50.5	47.7	47.7	51.5	50.9	51.6	51.9	52.6	52.9
Prunes, do	13.5	12.7	12.8	16.8	13.4	13.0	14.8	11.7	11.2	10.1	10.8	10.7
Raisins, do	13.6	13.1	13.3	14.3	13.5	13.4	13.4	12.9	12.8	13.7	12.9	12.9
Bananas, dozen	32.5	30.7	30.3	36.8	38.9	38.2	[2] 11.0	[2] 11.7	[2] 11.7	[2] 13.0	[2] 12.6	[2] 12.0
Oranges, do	43.9	46.4	53.5	47.3	50.2	53.6	47.4	60.2	58.0	48.7	48.6	49.1

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[2] Per pound.
[4] No. 2½ can.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Providence, R. I.			Richmond, Va.			Rochester, N. Y.			St. Louis, Mo.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	[1]70.4	[1]78.3	[1]77.5	40.0	44.3	43.4	40.6	45.4	45.0	36.8	39.2	39.5
Round steak, do	48.5	51.8	51.5	35.4	39.0	38.8	33.7	37.9	37.9	35.3	38.3	38.7
Rib roast, do	37.1	41.8	41.2	32.2	34.0	33.9	30.6	33.0	33.6	30.1	32.4	32.1
Chuck roast, do	28.3	33.2	32.6	23.7	25.5	25.5	24.2	28.3	28.1	21.8	23.9	24.2
Plate beef, do	17.2	20.7	20.8	16.3	18.2	18.8	13.8	16.9	16.6	15.2	17.1	17.6
Pork chops, do	38.9	30.9	30.9	35.6	29.9	29.1	38.6	32.7	31.0	32.3	24.0	22.4
Bacon, sliced, do	44.9	40.2	39.2	45.3	41.6	40.8	44.4	39.4	37.8	43.6	42.1	39.0
Ham, sliced, do	59.6	54.1	53.5	46.4	44.6	44.3	56.5	51.6	50.4	52.7	49.3	48.8
Lamb, leg of, do	41.4	38.9	39.9	43.8	43.4	44.4	38.4	37.9	38.9	37.6	35.4	37.3
Hens, do	42.2	41.3	40.8	37.6	36.3	36.1	42.0	40.3	40.7	36.7	34.2	33.9
Salmon, canned, red, do	33.5	33.3	33.5	33.6	35.3	34.7	30.8	36.7	36.3	34.6	35.8	35.8
Milk, fresh, quart	14.3	15.7	15.7	14.0	14.0	14.0	12.5	13.5	13.5	13.0	13.0	13.0
Milk, evaporated, 15–16 oz. can	12.1	12.0	11.7	12.5	12.4	12.3	11.7	11.3	11.3	10.3	10.6	10.6
Butter, pound	58.9	54.8	56.6	61.9	60.6	59.8	59.5	55.5	56.6	61.6	58.3	59.8
Oleomargarine (all butter substitutes), pound	28.9	25.7	27.1	31.7	30.0	29.6	30.1	28.7	28.4	26.9	27.1	26.9
Cheese, do	36.8	38.7	38.5	36.9	37.8	37.0	37.1	39.1	38.8	36.6	38.6	37.2
Lard, do	18.3	17.7	17.2	18.5	18.6	17.3	18.1	17.1	17.1	15.4	14.1	13.6
Vegetable-lard substitute, do	26.9	26.3	26.3	25.8	25.9	25.5	25.0	26.0	26.2	25.9	25.1	25.2
Eggs, strictly fresh, dozen	45.1	55.3	48.2	30.9	45.9	32.9	34.3	45.4	39.4	30.0	38.6	35.4
Bread, pound	9.2	9.0	9.0	9.3	9.0	9.1	9.0	9.1	9.1	9.9	9.8	9.8
Flour, do	5.9	5.5	5.5	5.6	5.2	5.2	5.4	5.1	5.2	5.2	5.1	5.1
Corn meal, do	5.0	5.1	5.1	4.5	4.8	4.8	5.4	6.1	6.2	4.3	4.2	4.2
Rolled oats, do	9.1	9.0	9.0	8.9	8.6	8.6	9.4	9.4	9.1	8.5	8.1	8.2
Corn flakes, 8-oz. pkg.	10.8	9.5	9.5	10.9	9.8	9.7	10.3	9.4	9.4	10.0	9.1	9.2
Wheat cereal, 28-oz. pkg.	25.1	24.7	24.4	25.6	26.1	26.2	24.6	25.5	25.4	24.7	24.8	24.8
Macaroni, pound	23.3	22.9	22.9	20.4	20.2	20.2	19.7	21.3	21.2	20.9	19.6	19.3
Rice, do	11.5	10.5	10.3	12.1	11.3	11.4	10.7	9.7	9.6	10.3	9.8	9.7
Beans, navy, do	9.3	10.0	10.9	8.7	10.3	11.1	8.9	9.5	10.6	7.8	9.6	10.0
Potatoes, do	3.5	3.0	3.6	4.5	3.6	3.8	2.5	2.5	3.2	4.1	3.3	3.4
Onions, do	5.9	5.2	6.7	6.4	5.3	6.4	4.8	4.6	6.4	5.6	5.0	6.0
Cabbage, do	5.3	5.4	5.5	5.5	4.9	5.9	4.3	1.9	4.0	4.1	3.7	4.8
Beans, baked, No. 2 can	11.6	10.8	10.8	10.1	10.1	10.1	10.1	10.2	10.2	10.4	10.2	10.2
Corn, canned, do	17.4	17.0	17.1	15.2	15.0	14.6	15.5	15.9	16.3	15.7	15.3	15.5
Peas, canned, do	18.7	18.6	18.5	20.2	18.4	18.5	18.1	17.9	17.9	15.1	14.9	15.3
Tomatoes, canned, do	13.0	13.1	12.9	10.4	10.5	10.1	13.2	14.2	14.5	11.5	11.0	11.1
Sugar, pound	7.2	6.9	6.8	7.2	7.0	7.0	7.0	6.6	6.4	7.4	7.0	7.1
Tea, do	60.9	59.7	60.0	91.3	92.1	90.5	68.7	69.0	69.0	75.0	74.9	75.8
Coffee, do	52.1	50.6	51.0	46.8	46.5	47.2	47.2	46.4	46.4	46.9	46.4	46.7
Prunes, do	14.8	12.6	13.1	16.2	13.8	14.0	15.9	13.0	13.3	18.8	14.4	14.3
Raisins, do	14.4	13.4	13.7	14.3	13.3	13.1	14.4	13.9	13.6	14.2	13.3	13.7
Bananas, dozen	31.7	32.9	33.3	37.3	40.0	40.5	36.4	38.3	40.0	29.3	33.8	31.9
Oranges, do	55.6	58.8	63.0	41.3	50.4	55.0	48.7	55.2	55.1	46.8	49.2	50.5

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	St. Paul, Minn.			Salt Lake City, Utah			San Francisco, Calif.			Savannah, Ga.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak, pound	34.7	39.1	39.7	31.3	35.4	35.9	33.2	36.9	37.7	35.0	36.1	37.8
Round steak, do	30.3	33.8	34.7	29.0	32.8	33.6	30.0	35.4	35.6	27.8	28.9	31.1
Rib roast, do	29.1	32.2	32.4	24.4	26.6	27.2	30.5	33.7	34.2	27.5	27.8	28.9
Chuck roast, do	23.5	26.5	26.2	18.8	22.4	22.1	20.1	23.4	23.7	17.8	18.9	20.6
Plate beef, do	13.7	15.6	16.1	13.9	16.6	16.7	15.9	19.1	18.8	15.0	16.9	18.7
Pork chops, do	33.6	26.8	25.4	38.4	32.3	30.2	43.3	36.8	36.0	34.5	29.8	29.0
Bacon, sliced, do	45.6	42.6	42.5	50.0	45.0	43.5	59.8	55.5	54.8	44.8	39.7	40.4
Ham, sliced, do	50.0	44.7	44.7	60.4	52.7	51.5	64.5	60.2	59.8	46.4	42.5	43.5
Lamb, leg of, do	33.0	31.9	33.9	35.7	34.9	36.4	37.6	39.4	39.5	40.0	38.0	39.0
Hens, do	33.5	32.9	33.9	33.5	30.9	31.6	44.6	43.0	43.2	36.0	30.9	30.0
Salmon, canned, red, do	36.3	39.6	39.9	35.1	35.4	34.5	30.5	32.2	32.1	33.3	34.3	35.3
Milk, fresh, quart	11.0	12.0	12.0	10.3	10.0	10.0	14.0	14.0	14.0	17.3	17.0	17.0
Milk, evaporated, 15–16 oz. can	11.6	12.1	12.2	10.5	10.4	10.2	10.1	9.9	10.0	11.1	11.2	10.9
Butter, pound	54.7	51.0	54.3	54.1	51.0	51.5	57.8	55.8	54.1	60.8	57.4	58.5
Oleomargarine (all butter substitutes), pound	25.2	24.6	24.2	29.3	26.9	26.4	30.4	25.4	25.4	34.4	31.5	30.7
Cheese, do	36.4	38.2	37.3	30.4	31.3	30.9	39.4	40.2	40.9	35.9	38.2	34.8
Lard, do	18.5	18.0	17.6	22.6	20.9	20.1	23.5	22.8	22.3	18.9	17.5	16.2
Vegetable lard substitute, do	28.1	28.5	28.5	29.2	29.3	28.4	28.3	27.5	27.6	16.7	16.9	16.5
Eggs, strictly fresh, dozen	31.4	39.2	33.8	29.9	36.2	26.8	32.6	33.5	33.6	33.1	36.3	31.7
Bread, pound	10.0	9.3	9.3	9.8	9.8	9.8	9.6	9.5	9.5	10.8	10.6	10.6
Flour, do	5.4	5.1	5.0	4.1	4.2	4.2	5.9	5.6	5.7	6.6	6.5	6.6
Corn meal, do	5.2	5.4	5.2	5.4	5.3	5.3	6.4	6.8	6.9	3.4	3.6	3.7
Rolled oats, do	10.2	9.7	9.8	8.8	8.3	9.0	9.9	9.9	10.0	8.8	8.8	8.7
Corn flakes, 8-oz. pkg	11.7	10.1	10.2	12.2	10.7	10.8	10.6	9.9	9.9	10.1	9.6	9.5
Wheat cereal, 28-oz. pkg	26.7	26.3	26.3	25.5	25.9	25.3	25.4	25.3	25.2	24.2	24.4	24.4
Macaroni, pound	18.5	18.5	18.7	20.3	19.9	19.6	16.3	15.9	15.7	18.2	17.8	18.0
Rice, do	10.9	10.7	10.9	9.4	9.0	9.2	11.3	10.6	10.6	9.7	9.7	9.2
Beans, navy, do	9.3	10.1	11.1	8.9	9.4	10.1	9.4	10.5	11.0	9.7	10.2	10.3
Potatoes, do	2.9	2.0	2.4	2.6	1.6	1.8	3.8	2.9	3.1	4.4	3.5	4.0
Onions, do	5.5	4.2	5.6	4.2	3.1	3.9	5.8	5.0	5.5	7.0	6.2	7.0
Cabbage, do	4.7	3.9	5.0	4.7	3.3	4.2	----	----	----	4.2	5.2	5.6
Beans, baked, No. 2 can	14.1	13.4	13.3	14.0	13.6	12.4	12.9	12.7	13.0	12.5	11.6	11.6
Corn, canned, do	14.4	14.6	14.8	14.4	14.7	14.0	18.6	18.0	17.7	15.4	14.6	14.9
Peas, canned, do	15.6	15.0	15.2	15.5	15.3	15.3	18.1	18.1	18.1	16.9	17.3	16.1
Tomatoes, canned, do	14.0	13.6	13.6	13.8	13.9	14.1	[4] 14.8	[4] 14.7	[4] 14.3	10.2	9.9	10.1
Sugar, pound	7.6	7.2	7.3	8.2	7.9	8.0	7.2	6.8	6.9	7.3	6.7	6.8
Tea, do	66.9	63.9	67.0	86.5	83.4	83.6	71.8	71.7	71.4	82.3	78.3	81.6
Coffee, do	52.5	52.2	52.5	55.7	54.8	54.5	52.6	52.7	53.3	46.1	43.9	44.7
Prunes, do	15.8	13.9	13.7	14.8	11.7	12.0	13.5	11.8	11.7	14.0	12.7	12.2
Raisins, do	15.2	14.5	14.5	13.6	13.0	12.9	13.2	12.0	11.9	14.5	13.8	13.6
Bananas, dozen	[3] 10.8	[3] 12.1	[3] 10.7	[3] 13.7	[3] 12.7	[3] 12.4	30.6	30.6	31.1	28.2	30.8	28.3
Oranges, do	48.7	57.4	57.5	43.9	49.1	47.3	50.8	54.1	53.6	35.7	40.8	46.2

[3] Per pound.

[4] No. 2½ can.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES MARCH 15, 1927, AND FEBRUARY AND MARCH 15, 1928—Continued

Article	Scranton, Pa.			Seattle, Wash.			Springfield, Ill.			Washington, D. C.		
	Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928		Mar. 15, 1927	1928	
		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15		Feb. 15	Mar. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak, pound	50.0	55.7	55.1	33.5	39.3	38.4	36.3	38.1	38.9	46.4	48.5	48.7
Round steak, do	42.1	46.8	46.8	29.4	35.9	35.0	35.8	37.5	38.5	39.0	41.7	42.0
Rib roast, do	36.8	39.4	38.8	27.8	31.7	31.1	23.6	25.3	25.6	34.0	36.1	35.5
Chuck roast, do	27.4	30.7	30.2	20.0	25.4	25.1	21.6	23.6	24.0	24.8	26.7	27.2
Plate beef, do	12.9	15.5	15.4	15.4	19.4	19.1	14.4	16.7	16.7	13.9	16.0	16.3
Pork chops, do	40.7	32.1	29.5	39.5	35.2	33.7	32.7	26.0	25.2	38.6	30.0	28.8
Bacon, sliced, do	49.2	45.6	44.2	57.5	54.4	53.0	47.9	43.2	43.6	47.4	41.6	39.6
Ham, sliced, do	60.0	55.5	54.3	62.5	57.7	55.9	53.8	47.1	45.9	58.1	56.3	53.7
Lamb, leg of, do	43.9	42.7	43.8	37.0	36.6	36.8	40.6	36.8	39.1	39.9	39.8	39.7
Hens, do	45.9	44.1	44.0	35.5	32.2	33.5	36.2	34.4	33.7	41.5	39.6	40.4
Salmon, canned, red, do	34.2	36.9	36.6	35.0	35.8	36.6	35.8	36.4	37.1	30.7	34.5	35.1
Milk, fresh, quart	12.0	13.0	13.0	12.0	12.0	12.0	14.4	14.4	14.4	15.0	15.0	15.0
Milk, evaporated, 15–16 oz. can	11.9	11.9	11.9	10.6	10.4	10.3	11.7	12.0	11.9	12.1	12.0	11.9
Butter, pound	59.9	56.8	57.3	56.7	55.9	55.6	59.4	54.4	55.6	62.5	59.9	61.0
Oleomargarine (all butter substitutes), pound	29.0	27.8	27.8	28.3	25.3	25.1	28.7	28.3	28.2	30.6	27.7	28.5
Cheese, do	35.9	38.0	38.1	34.9	36.3	35.5	38.2	38.9	38.5	40.1	40.7	40.7
Lard, do	19.9	19.1	18.5	21.1	21.4	20.5	19.1	17.5	17.3	17.4	16.6	16.6
Vegetable lard substitute, do	26.6	26.2	26.3	27.2	27.2	27.3	28.1	27.5	27.8	25.1	23.5	24.8
Eggs, strictly fresh, dozen	38.9	53.0	42.6	34.2	36.4	34.6	29.1	38.9	33.8	35.3	47.5	37.8
Bread, pound	10.7	10.6	10.6	9.7	9.7	9.7	10.1	10.3	10.2	9.1	9.0	8.9
Flour, do	5.9	5.8	5.8	4.8	4.8	4.9	5.7	5.2	5.2	5.8	5.5	5.5
Corn meal, do	7.9	7.7	7.5	5.3	5.5	5.5	4.9	4.6	4.6	5.2	5.2	5.3
Rolled oats, do	9.8	9.8	9.8	9.2	8.6	8.4	10.2	9.7	9.7	9.2	9.3	9.2
Corn flakes, 8-oz. pkg.	11.1	10.1	10.1	11.5	10.0	9.8	11.2	10.1	10.1	10.5	9.7	9.5
Wheat cereal, 28-oz. pkg.	25.3	25.7	25.3	27.4	26.8	26.4	26.5	27.7	27.9	24.6	24.9	24.9
Macaroni, pound	23.1	23.1	22.6	18.1	17.9	17.9	19.0	19.0	18.8	23.2	23.1	23.4
Rice, do	11.2	10.6	10.4	12.0	10.9	10.6	10.9	10.6	10.1	12.1	11.1	11.4
Beans, navy, do	10.8	10.8	11.2	9.8	11.3	11.1	9.1	11.0	11.7	8.8	9.6	10.1
Potatoes, do	3.4	3.0	3.4	3.0	1.8	2.2	3.6	2.6	3.2	3.9	3.7	4.0
Onions, do	5.6	5.2	6.2	5.7	4.8	5.1	6.1	5.0	6.3	5.8	5.1	6.8
Cabbage, do	5.9	4.3	5.9	5.4	4.9	5.3	5.0	3.6	5.1	5.7	5.3	5.9
Beans, baked, No. 2 can	11.3	11.2	11.2	12.4	11.4	11.5	10.6	10.3	10.1	10.3	10.4	10.5
Corn, canned, do	16.9	16.9	17.1	17.6	17.7	18.0	15.0	15.5	15.2	15.7	15.8	16.0
Peas, canned, do	17.7	17.4	17.3	19.0	18.7	19.2	16.2	16.2	16.3	16.6	15.3	15.4
Tomatoes, canned, do	12.5	12.2	12.2	[4] 17.8	[4] 16.0	[4] 16.0	13.9	13.7	13.7	10.9	10.8	10.6
Sugar, pound	7.2	7.1	7.0	6.8	7.0	7.0	8.0	7.6	7.6	7.2	6.8	6.7
Tea, do	71.3	71.5	72.1	76.5	76.7	76.4	81.9	82.7	86.3	93.5	95.7	95.5
Coffee, do	51.6	50.0	50.4	50.7	50.5	51.0	52.4	51.6	51.5	45.0	45.5	46.9
Prunes, do	16.7	14.8	14.3	14.0	12.0	12.0	15.4	14.1	14.0	16.6	14.9	14.4
Raisins, do	14.5	13.7	13.7	14.0	13.0	13.0	15.4	14.1	14.3	14.2	13.6	13.5
Bananas, dozen	32.9	32.5	32.0	[2] 13.3	[2] 12.9	[2] 11.7	[2] 9.6	[2] 9.8	[2] 9.4	33.4	35.9	33.9
Oranges, do	53.3	58.8	58.9	47.8	48.4	51.7	50.8	53.9	52.8	44.1	52.5	58.1

[2] Per pound.

[4] No. 2½ can.

Comparison of Retail Food Costs in 51 Cities

TABLE 5 shows for 39 cities the percentage of increase or decrease in the retail cost of food[3] in March, 1928, compared with the average cost in the year 1913, in March, 1927, and February, 1928. For 12 other cities comparisons are given for the one-year and the one-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are

[3] For list of articles see note 1, p. 170.

based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[4]

TABLE 5.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN MARCH, 1928, COMPARED WITH THE COST IN FEBRUARY, 1928, MARCH, 1927, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Per centage increase March, 1928, compared with 1913	Percentage decrease March, 1928, compared with—		City	Per centage increase March, 1928, compared with 1913	Percentage decrease March, 1928, compared with—	
		March, 1927	February, 1928			March, 1927	February, 1928
Atlanta	53.6	2.4	0.7	Minneapolis	52.3	[1]1.4	[1]1.4
Baltimore	55.0	2.5	1.9	Mobile		1.8	[1]0.8
Birmingham	54.7	3.5	1.1	Newark	47.9	[1]0.3	0.7
Boston	55.0	[1]0.6	0.2	New Haven	53.6	0.7	1.2
Bridgeport		0.4	0.1	New Orleans	49.7	3.2	[1]0.1
Buffalo	56.8	[1]0.2	[1]0.4	New York	55.0	1.3	1.6
Butte		3.2	2.6	Norfolk		0.6	1.4
Charleston, S. C.	52.9	2.6	0.0	Omaha	42.4	6.3	0.8
Chicago	60.6	2.4	0.9	Peoria		3.5	[1]0.9
Cincinnati	52.6	1.4	[1]0.2	Philadelphia	56.4	0.5	0.6
Cleveland	50.8	1.4	[1]0.8	Pittsburgh	53.3	2.3	0.0
Columbus		3.3	0.4	Portland, Me.		[1]0.9	1.1
Dallas	51.5	0.0	[1]0.2	Portland, Oreg.	36.8	[1]0.2	0.9
Denver	35.5	2.1	[1]0.7	Providence	54.7	[1]1.0	[1]0.3
Detroit	57.7	1.6	[1]0.9	Richmond	57.3	1.9	1.8
Fall River	51.1	0.2	1.0	Rochester		[1]3.0	[1]1.0
Houston		2.7	0.1	St. Louis	54.2	2.1	0.0
Indianapolis	47.2	0.2	[1]1.6	St. Paul		0.9	[1]1.0
Jacksonville	41.1	5.4	[1]0.3	Salt Lake City	27.8	3.3	1.1
Kansas City	49.1	0.5	[1]1.7	San Francisco	48.0	1.3	[1]0.4
Little Rock	44.5	1.6	[1]0.7	Savannah		2.6	[1]1.0
Los Angeles	39.2	2.2	[1]1.2	Scranton	59.5	[1]0.4	0.9
Louisville	49.3	0.1	0.6	Seattle	42.1	0.7	0.0
Manchester	51.1	[1]0.7	0.0	Springfield, Ill.		1.9	[1]1.1
Memphis	43.8	[1]0.8	[1]1.2	Washington, D. C.	58.2	1.1	0.8
Milwaukee	53.0	[1]0.2	[1]0.4				

[1] Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of March 99.6 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 47 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Boston, Bridgeport, Buffalo, Butte, Charleston, S. C., Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New York, Norfolk, Omaha, Peoria, Philadelphia, Pittsburgh, Portland, Me., Portland, Oreg., Providence, Richmond, Rochester, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, Springfield, Ill., and Washington, D. C.

[4] The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

The following summary shows the promptness with which the merchants responded in March, 1928:

RETAIL PRICE REPORTS RECEIVED FOR MARCH, 1928

Item	United States	Geographical division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received	99.6	100.0	100.0	99.7	98.0	99.5
Number of cities in each section from which every report was received	47	14	8	13	6	6

Retail Prices of Coal in the United States [1]

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, March 15, 1927, and February 15 and March 15, 1928, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MARCH 15, 1927, AND FEBRUARY 15 AND MARCH 15, 1928

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Mar. 15	Feb. 15	Mar. 15
United States:					
Pennsylvania anthracite—					
Stove—					
Average price	**$7.99**	**$7.46**	**$15.60**	**$15.44**	**$15.43**
Index (1913=100)	**103.4**	**96.6**	**201.9**	**199.9**	**199.8**
Chestnut—					
Average price	**$8.15**	**$7.68**	**$15.36**	**$15.09**	**$15.08**
Index (1913=100)	**103.0**	**97.0**	**194.0**	**190.6**	**190.5**
Bituminous—					
Average price	**$5.48**	**$5.39**	**$9.74**	**$9.28**	**$9.26**
Index (1913=100)	**100.8**	**99.2**	**179.3**	**170.8**	**170.4**
Atlanta, Ga.:					
Bituminous	$5.88	$4.83	$8.62	$7.92	$7.88
Baltimore, Md.:					
Pennsylvania anthracite—					
Stove	* 7.70	* 7.24	* 16.00	* 16.00	* 16.00
Chestnut	* 7.93	* 7.49	* 15.50	* 15.25	* 15.25
Bituminous			8.32	8.11	8.07
Birmingham, Ala.:					
Bituminous	4.22	4.01	7.98	7.67	7.76
Boston, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.50	16.50	16.25	16.25
Chestnut	8.25	7.75	16.25	16.00	16.00
Bridgeport, Conn.:					
Pennsylvania anthracite—					
Stove			15.75	14.88	14.88
Chestnut			15.75	14.88	14.88

* Per ton of 2,240 pounds.

[1] Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since July, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MARCH 15, 1927, AND FEBRUARY 15 AND MARCH 15, 1928—Continued

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Mar. 15	Feb. 15	Mar. 15
Buffalo, N. Y.:					
Pennsylvania anthracite—					
Stove	$6.75	$6.54	$13.74	$14.03	$14.01
Chestnut	6.99	6.80	13.37	13.63	13.61
Butte, Mont.:					
Bituminous	----------	----------	10.93	10.89	10.89
Charleston, S. C.:					
Bituminous	[1] 6.75	[1] 6.75	11.00	11.00	11.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove	8.00	7.80	17.00	16.95	16.95
Chestnut	8.25	8.05	16.80	16.46	16.46
Bituminous	4.97	4.65	9.31	9.21	9.21
Cincinnati, Ohio:					
Bituminous	3.50	3.38	7.46	7.10	7.10
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove	7.50	7.25	15.45	15.15	15.15
Chestnut	7.75	7.50	14.95	14.75	14.75
Bituminous	4.14	4.14	9.40	8.98	8.96
Columbus, Ohio:					
Bituminous	----------	----------	7.62	7.24	6.85
Dallas, Tex.:					
Arkansas anthracite—					
Egg	----------	----------	16.00	15.50	15.50
Bituminous	8.25	7.21	13.22	12.70	12.70
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	8.88	9.00	16.00	16.00	16.00
Stove, 3 and 5 mixed	8.50	8.50	16.50	16.00	16.00
Bituminous	5.25	4.88	10.73	10.47	10.45
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove	8.00	7.45	16.00	16.00	16.00
Chestnut	8.25	7.65	15.58	15.50	15.50
Bituminous	5.20	5.20	9.78	9.31	9.33
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.43	16.75	16.75	16.75
Chestnut	8.25	7.61	16.25	16.25	16.25
Houston, Tex.:					
Bituminous	----------	----------	13.50	12.60	12.60
Indianapolis, Ind.:					
Bituminous	3.81	3.70	7.41	7.23	7.22
Jacksonville, Fla.:					
Bituminous	7.50	7.00	14.00	14.00	14.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace	----------	----------	14.50	14.10	13.50
Stove No. 4	----------	----------	15.83	15.33	15.17
Bituminous	4.39	3.94	7.73	7.54	7.50
Little Rock, Ark.:					
Arkansas anthracite—					
Egg	----------	----------	14.00	13.50	13.50
Bituminous	6.00	5.33	10.90	10.60	10.60
Los Angeles, Calif.:					
Bituminous	13.52	12.50	16.50	16.50	16.50
Louisville, Ky.:					
Bituminous	4.20	4.00	7.82	7.49	7.45
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove	10.00	8.50	17.50	17.50	17.50
Chestnut	10.00	8.50	17.50	17.25	17.25
Memphis, Tenn.:					
Bituminous	[2] 4.34	[2] 4.22	8.80	8.32	8.33
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove	8.00	7.85	16.80	16.65	16.65
Chestnut	8.25	8.10	16.65	16.20	16.20
Bituminous	6.25	5.71	10.56	9.48	9.48
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove	9.25	9.05	17.92	18.15	18.15
Chestnut	9.50	9.30	17.65	17.70	17.70
Bituminous	5.89	5.79	11.72	11.69	11.74
Mobile, Ala.:					
Bituminous	----------	----------	9.92	9.46	9.50

[1] Per ton of 2,240 pounds.

[2] Per 10-barrel lot (1,800 pounds).

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MARCH 15, 1927, AND FEBRUARY 15 AND MARCH 15, 1928—Continued

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Mar. 15	Feb. 15	Mar. 15
Newark, N. J.:					
Pennsylvania anthracite—					
Stove	$6.50	$6.25	$13.90	$14.00	$14.00
Chestnut	6.75	6.50	13.40	13.50	13.50
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove	7.50	6.25	15.40	15.10	15.10
Chestnut	7.50	6.25	15.40	15.10	15.10
New Orleans, La.:					
Bituminous	[3] 6.06	[3] 6.06	11.21	11.29	11.29
New York, N. Y.:					
Pennsylvania anthracite—					
Stove	7.07	6.66	14.54	14.75	14.75
Chestnut	7.14	6.80	14.29	14.42	14.42
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove	----------	----------	16.00	15.00	15.00
Chestnut	----------	----------	16.00	15.00	15.00
Bituminous	----------	----------	9.71	9.09	9.05
Omaha, Nebr.:					
Bituminous	6.63	6.13	10.19	10.16	10.13
Peoria, Ill.:					
Bituminous	----------	----------	7.06	6.94	6.94
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove	[1] 7.16	[1] 6.89	[1] 15.79	[1] 14.93	[1] 14.93
Chestnut	[1] 7.38	[1] 7.14	[1] 15.54	[1] 14.43	[1] 14.43
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut	[1] 8.00	[1] 7.44	15.63	14.88	14.88
Bituminous	[2] 3.16	[2] 3.18	6.24	5.51	5.44
Portland, Me.:					
Pennsylvania anthracite—					
Stove	----------	----------	16.80	16.80	16.80
Chestnut	----------	----------	16.80	16.80	16.80
Portland, Oreg.:					
Bituminous	9.79	9.66	13.34	13.21	13.21
Providence, R. I.:					
Pennsylvania anthracite—					
Stove	[4] 8.25	[4] 7.50	[4] 16.50	[4] 16.25	[4] 16.25
Chestnut	[4] 8.25	[4] 7.75	[4] 16.50	[4] 16.00	[4] 16.00
Richmond, Va.:					
Pennsylvania anthracite—					
Stove	8.00	7.25	16.50	15.67	15.50
Chestnut	8.00	7.25	16.50	15.67	15.50
Bituminous	5.50	4.94	10.70	9.73	9.61
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove	----------	----------	14.60	14.60	14.60
Chestnut	----------	----------	14.15	14.15	14.15
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove	8.44	7.74	17.45	16.90	16.90
Chestnut	8.68	7.99	17.20	16.45	16.45
Bituminous	3.36	3.04	7.45	7.02	6.96
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove	9.20	9.05	17.92	18.15	18.15
Chestnut	9.45	9.30	17.65	17.70	17.70
Bituminous	6.07	6.04	12.18	11.98	11.96
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	11.00	11.50	18.00	18.00	18.00
Stove, 3 and 5 mixed	11.00	11.50	18.00	18.00	18.00
Bituminous	5.64	5.46	8.47	8.36	8.36
San Francisco, Calif.:					
New Mexico anthracite—					
Cerillos egg	17.00	17.00	26.50	26.50	26.50
Colorado anthracite—					
Egg	17.00	17.00	25.75	25.75	25.75
Bituminous	12.00	12.00	17.11	17.25	16.88
Savannah, Ga.:					
Bituminous	----------	----------	[5] 13.25	[5] 11.13	[5] 11.13

[1] Per ton of 2,240 pounds.
[2] Per 10-barrel lot (1,800) pounds).
[3] Per 25-bushel lot (1,900 pounds).
[4] The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.
[5] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MARCH 15, 1927, AND FEBRUARY 15 AND MARCH 15, 1928—Continued

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Mar. 15	Feb. 15	Mar. 15
Scranton, Pa.:					
Pennsylvania anthracite—					
Stove	$4.25	$4.31	$10.58	$10.75	$10.75
Chestnut	4.50	4.56	10.25	10.50	10.50
Seattle, Wash.:					
Bituminous	7.63	7.70	10.47	10.12	10.18
Springfield, Ill.:					
Bituminous			4.35	4.44	4.44
Washington, D. C.:					
Pennsylvania anthracite—					
Stove	[1] 7.50	[1] 7.38	[1] 15.75	[1] 15.51	[1] 15.51
Chestnut	[1] 7.65	[1] 7.53	[1] 15.49	[1] 15.01	[1] 15.01
Bituminous—					
Prepared sizes, low volatile			[1] 11.50	[1] 10.75	[1] 10.75
Prepared sizes, high volatile			[1] 9.63	[1] 8.75	[1] 8.75
Run of mine, mixed			[1] 8.10	[1] 7.88	[1] 7.88

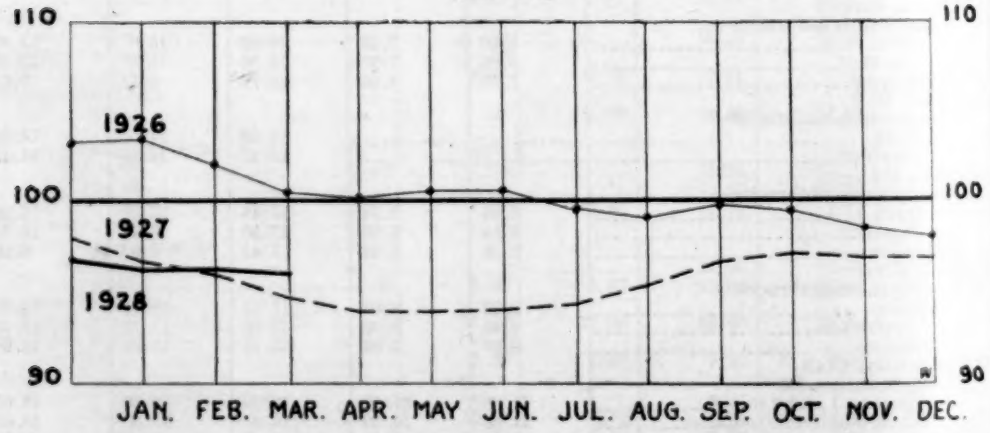
[1] Per ton of 2,240 pounds.

Index Numbers of Wholesale Prices in March, 1928

THE general level of wholesale prices in March was slightly lower than in February, according to information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number, computed on prices in the year 1926 as the base and including 550 commodities or price series, stands at 96.0 for March compared with 96.4 for February, a decrease of nearly one-half of 1 per cent. Compared with March, 1927, with an index number of 94.5, an increase of over 1½ per cent is shown.

TREND OF WHOLESALE PRICES

[1926=100]



Farm products as a group declined nearly 1 per cent from the February level, due largely to price decreases for cattle, eggs, and tobacco. Grains, cotton, hay, and potatoes, on the other hand, were higher than in February.

Foods as a whole declined slightly in price, as did also fuel and lighting materials, chemicals and drugs, and miscellaneous commodities. Little or no change in the price level was reported for other commodity groups, including hides and leather products, textile products, metals and metal products, building materials, and house-furnishing goods.

Of the 550 commodities or price series for which comparable information for February and March was collected, increases were shown in 147 instances and decreases in 110 instances. In 293 instances no change in price was reported.

Comparing prices in March with those of a year ago, as measured by changes in the index number, it is seen that farm products and hides and leather products were considerably higher while foods and textile products were somewhat higher. Minor increases are shown for metals and metal products and house-furnishing goods. Fuel and lighting materials, owing to decreases in bituminous coal, coke, and petroleum products, were 10 per cent cheaper than in March, 1927. A small decrease is shown for chemicals and drugs, with larger decreases for building materials and miscellaneous commodities.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100]

Groups and subgroups	March, 1927	1928		
		February	March	Purchasing power of the 1926 dollar in March (cents)
Farm products	94.2	104.5	103.5	96.6
Grains	93.0	108.4	113.6	88.0
Livestock and poultry	100.6	100.1	96.3	103.8
Other farm products	90.2	106.1	105.0	95.2
Foods	94.5	98.7	98.0	102.0
Butter, cheese, and milk	106.1	106.4	104.2	96.0
Meats	89.9	97.8	94.7	105.6
Other foods	93.0	96.2	97.7	102.4
Hides and leather products	100.5	124.1	124.0	80.6
Hides and skins	102.3	158.7	157.3	63.6
Leather	100.2	129.3	129.3	77.3
Boots and shoes	99.8	109.2	109.5	91.3
Other leather products	101.2	108.4	108.4	92.3
Textile products	94.0	96.6	96.5	103.6
Cotton goods	92.7	101.4	100.9	99.1
Silk and rayon	90.6	84.8	84.7	118.1
Woolen and worsted goods	98.8	99.9	100.6	99.4
Other textile products	93.5	88.2	86.6	115.5
Fuel and lighting	90.0	81.2	80.8	123.8
Anthracite coal	96.8	95.3	94.8	105.5
Bituminous coal	100.1	94.7	93.8	106.6
Coke	96.0	84.4	84.4	118.5
Manufactured gas	98.1	95.9	(1)	
Petroleum products	80.0	66.6	66.6	150.2
Metals and metal products	98.2	98.3	98.4	101.6
Iron and steel	97.4	94.9	95.2	105.0
Nonferrous metals	95.1	90.5	90.4	110.6
Agricultural implements	99.4	98.8	98.8	101.2
Automobiles	99.8	104.3	104.3	95.9
Other metal products	99.5	97.9	97.9	102.1
Building materials	95.3	91.0	91.0	109.9
Lumber	95.0	88.9	88.9	112.5
Brick	93.6	92.5	92.3	108.3
Cement	96.5	96.5	96.5	103.6
Structural steel	97.0	94.5	97.0	103.1
Paint materials	92.5	85.9	85.5	117.0
Other building materials	96.4	93.2	92.7	107.9
Chemicals and drugs	97.1	95.8	95.6	104.6
Chemicals	97.4	102.1	101.0	99.0
Drugs and pharmaceuticals	88.7	71.7	71.1	140.6
Fertilizer materials	100.1	94.0	96.5	103.6
Fertilizers	100.0	96.5	96.8	103.3
House-furnishing goods	97.8	98.4	98.3	101.7
Furniture	97.8	98.0	97.9	102.1
Furnishings	98.8	98.7	98.6	101.4
Miscellaneous	90.9	87.3	86.8	115.2
Cattle feed	110.9	139.1	154.4	64.8
Paper and pulp	92.8	90.9	90.5	110.5
Rubber	84.1	64.7	55.0	181.8
Automobile tires	78.7	69.8	69.8	143.3
Other miscellaneous	100.0	99.2	98.3	101.7
All commodities	94.5	96.4	96.0	104.2

[1] Data not yet available.

Retail Prices in Tokyo, December 15, 1927

THE following retail prices for various commodities in Tokyo, December 15, 1927, were reported in The Monthly Bulletin of Financial and Economic Statistics of the Chamber of Commerce and Industry of that city, December, 1927:

RETAIL PRICES OF COMMODITIES IN TOKYO, DECEMBER 15, 1927

[Exchange rate of yen December, 1927=46.18 cents; 1 sho=0.48 gallon or 0.205 peck; 1 momme=0.1325 ounce; 1 kin=1.325 pounds; 1 go=0.17 quart; 1 shaku=1.243 feet; 1 kwan=8.2817 pounds]

Commodity	Unit	Price Dec. 15, 1927		Index number (Dec. 15, 1926=100)
		Yen	U. S. currency	
Cereals and vegetables:				
Cleaned rice—				
First grade	Sho	0.403	$0.195	92.4
Second grade	do	.408	.188	92.1
Third grade	do	.388	.179	91.0
Glutinous rice, third grade	do	.450	.208	97.8
Improved barley	do	.180	.083	112.5
Soya beans	do	.300	.139	88.0
Red beans	do	.260	.120	76.9
Onions	100 momme	.050	.023	100.0
Potatoes	do	.040	.018	114.3
Wheat flour, Bamboo brand	do	.080	.037	106.7
Beverages and seasonings:				
Tea	Kin	3.000	1.385	100.0
Bean paste "Miso"	100 momme	.085	.039	94.4
Say	Sho	.800	.369	100.0
Table salt	Kin	.066	.030	100.0
"Sake"	Sho	2.250	1.039	100.0
Beer	Bottle	.420	.194	95.5
Sugar	Kin	.270	.125	96.4
Dried ponito	10 momme	1.800	.831	94.7
Meat and fish:				
Beef	do	1.600	.739	100.0
		.950	.439	100.0
Pork	do	.800	.369	80.0
Chicken	do	1.300	.600	92.9
Salted salmon	do	.180	.083	105.9
Eggs	do	.400	.185	87.0
Fresh milk	Go	.090	.042	90.0
Condensed milk	Tin	.480	.222	96.0
Sundry provisions:				
Dried mushrooms	Sho	.650	.300	95.6
Dried gourd strips	100 momme	.300	.139	85.7
Dried plums	do	.200	.092	100.0
Pickled radish	do	.080	.037	80.0
Macaroni "Udon"	Ball	.020	.009	100.0
Bean-curd—				
"Koya Tofu"	10 pieces	.200	.092	111.1
"Tofu"	Piece	.050	.023	100.0
Clothing:				
Bleached cotton	do	.700	.323	93.3
Cloth for lining	do	1.500	.693	100.0
Muslin, white	Shaku	.360	.166	105.9
Silk crêpe, white	do	1.100	.508	91.7
Cotton thread	1,000 momme	.980	.453	108.9
Cotton	Kwan	6.700	3.094	103.1
Socks, "Tabi"	Pair	.700	.323	100.0
Sundry articles:				
Charcoal, soft	4 kwan	1.900	.877	100.0
Charcoal, hard	5 kwan	2.350	1.085	102.2
Firewood	Bundle	.400	.185	100.0
Coke	7 kwan	1.300	.600	100.0
Soap	Piece	.160	.074	100.0
Matches	Box	.080	.037	100.0
Paper, Japanese	20 sheets	.040	.018	100.0
General average				97.4

LABOR AGREEMENTS, AWARDS AND DECISIONS

Labor Agreements

Street Railways—Mitten Management

AFTER more than 20 years of conflict an agreement has been reached between the Amalgamated Association of Street and Electric Railway Employees and the Mitten Management. The Mitten Management operates at present the street-railway systems of Philadelphia and Buffalo, and, according to press reports, may shortly take over the operation of the systems in other cities. The text of the agreement, signed March 25, 1928, is as follows:

Memorandum of Union-Management Agreement

Mitten Management reiterates its desire to deal with organized labor whenever and wherever any union organization will undertake to cooperate for increased economic efficiency and where two-thirds of the employees, by secret ballot, may so elect.

Mahon and associates, speaking for the Amalgamated Association of Street and Electric Railway Employees of America, being also desirous of cooperating in economic accomplishment and of aiding their membership to a 50–50 participation in the rewards rightfully paid to men and management, in addition to the present wages paid, have now come to an understanding with Mitten Management (Inc.) by which the following procedure will hereafter govern both parties:

The Philadelphia Rapid Transit cooperative plan of 1926 shall be made effective with the union covering such system, or departments of a system, as the union may designate, after two-thirds of such employees shall have so determined by secret ballot, it being fully understood that the right to organize is a fundamental right of labor which should not and can not be permanently abridged or denied, but it is now understood and agreed that the activities of the Amalgamated in this respect shall be restricted to properties that are to be acquired or operated by Mitten Management in the future.

So far as Philadelphia and Buffalo are concerned, conditions there are to remain as at present in so far as organization activities are concerned, it being desirable that the situation on these properties shall remain as at present in order that the standard of economic excellence of these companies now being operated by Mitten Management be the standard by which union performance in cooperating with Mitten Management on other properties shall be measured. When cooperation between the Amalgamated and Mitten Management has developed to a point where the results are equal to those obtained on these properties, the matter of union-management agreements on these properties may be discussed and be made the basis of further agreement.

Working agreements, including standards of work and compensation, to be matter of local arrangement and ratification. Collective consideration to be upon the basis of group representation through branch, departmental, and general committees, with recourse to arbitration in case of failure or agreement. Before arbitration shall be resorted to, however, the matter under discussion shall be submitted to two representatives of the International Association and two

representatives of Mitten Management for review and attempted settlement. Failing agreement one arbitrator for employee and one arbitrator for employer shall be chosen, these to select a third. If these two arbitrators are unable to agree upon the third arbitrator then the public service commission shall act as the third arbitrator.

Contract shall run during delivery of cooperative effectiveness, which is understood to mean that degree of assistance in securing the result on the property in question as secured by Mitten Management on the properties operated by them at this date. Nonperformance by either party to be settled through arbitration. Contract may be terminated by vote—secret ballot—of two-thirds of the employees represented by the organization. Operating company and union to each supply, at their own cost, their representatives on the 50–50 collective consideration committees, also each their own secretary. Operating company and union to share equally in the office and operating expenses as mutually decided. Operating company where two-thirds of the employees so vote to collect by check-off system and pay to organization such amounts as the organization may, from time to time decide. All the employees of the departments involved to be so assessed. Funeral, disability, old age, and all other benefits to be undertaken by the union, for which operating company will pay union $1 per month, per man.

In addition to the usual results of collective consideration, it is the further object of this arrangement to secure for all interested parties, the advantages of collective effort and accomplishment. To the owners this will mean a fair return on their property; to the public an adequate and efficient system of transportation; and to employees, in addition to wages sufficient for the necessities of life, comfort and savings, an opportunity to participate in increased earnings made possible by their increased effort and productive efficiencies. Mitten Management and Amalgamated Association are agreed that the same 50–50 participation shall be effective between "management and union" as now exists between "management and men" and the sense of this agreement is that both shall supply the same degree of cooperation and both similarly shall participate in the results secured therefrom.

In explanation of the above agreement, Mr. W. D. Mahon, president of the Amalgamated Association of Street and Electric Railway Employees of America, issued the following statement:

For the past three weeks representatives of the Amalgamated Association of Street and Electric Railway Employees of America have been in conference from time to time with Mr. T. E. Mitten and Dr. A. A. Mitten, who represent the Mitten Management, working to bring about an understanding between the two organizations.

We feel that we have finally reached a thorough understanding. We have agreed that all disputes of the past shall be buried and that we will cooperate in the future on a basis that will establish better conditions for all who are interested in this transportation question. The basis that we have outlined we feel will bring to the riding public a perfect, cheap, and satisfactory system of transportation that will answer all requirements.

Second. We feel that it will bring to the management an assured, reliable and permanent business.

Third. That it will bring to the employees who follow this occupation better wages, a higher standard of living, and in the end joint ownership and management of the properties on which we work.

It is a new step in the industrial undertakings of America, but I feel that we understand one another thoroughly and that the spirit of cooperation will be developed fully, fairly, and honestly and that if that is done it is bound to bring the results that we are striving for. It will take time and patience to work it out, but both sides thoroughly understand that and I feel thoroughly understand one another, and I have great hopes for this plan for the future. It brings, as it were, a new day to this great army of industrial workers that follow this occupation and have struggled for so many years to bring about a better and happier day, and I feel assured that if our plans work out as we have outlined them it is the beginning of a happier and brighter hour for the street and electric railway workers of America.

The attitude of the Mitten Management toward the foregoing agreement is set forth in an article in Service Talks, published by the company, of March 27, 1928:

These two men have been seeking industrial peace for more than 30 years. Each has always had great respect and admiration for the other. Yet more than half the time each has been obliged to fight the other by the force of the powers to which Mahon owed his leadership as president of the Amalgamated Association of Street and Electric Railway Employees of America, and Mitten his position representing capital.

Mitten 20 years ago endeavored to secure cooperation as between capital and labor, but neither the force led by Mahon nor the capital represented by Mitten could be brought each to trust the other at Chicago, and Mitten came east in 1911 to try his 50-50 plan as between labor and capital in Philadelphia, where it was fully intended by Mitten and Mahon that the union and company would cooperate.

The Philadelphia Rapid Transit cooperative plan of 1911 was signed up and all looked well, but insurgents in the forces of organized labor caused it to fail in polling the agreed two-thirds vote. The fat was in the fire, and as one fight leads to another there followed a constant sniping by labor at its real friend, Mitten, who for the past 15 years has been forced to fight off organized labor and against conservative capital to protect his 50–50 plan, which is now generally admitted to have proven beneficial alike to employees, owners, and public.

"All's well that ends well" and "everything happens for the best" are old and trite sayings. These have proven true here. Capital has now capitulated, and had Mitten and Mahon worked together from 1911 forward as planned, their very association would have encouraged radical labor and reactionary capital to such opposition as would have made impossible the wonderful results secured by Mitten and the men of Philadelphia and Buffalo. These two cities, independently operated, can now be used as a measuring stick for results to be obtained wherever Mitten Management and organized labor can be combined.

Brotherhood of Locomotive Engineers bank absorption by Mitten Bank on terms most favorable to the Brotherhood, and Producers and Consumers Labor Bank being saved by Mitten men and management, has brought the Mitten organization very close to other labor organizations, notably the Full Fashioned Hosiery Workers, who are leading the van in protection of their industry, * * *. Labor Economist W. Jett Lauck, in his position as secretary of the War Labor Board, investigated the Mitten plan and found it so good that he has ever since urged on Mahon and Mitten the wisdom of labor and capital being brought together in mutual advantage under Mitten's 50–50 plan.

The Mittens and Mahons have been meeting at Atlantic City, through the good offices of Lauck. They have agreed on a plan prepared with the cooperation of L. D. Bland, treasurer, and P. J. Shea, vice president, of the Amalgamated, whereby the Mitten policy of cooperation between management and men, with each sharing 50–50 in the proceeds, may be applied to any transportation system.

W. D. Mahon has trained his own son in economics, which fits him admirably for the task of representing labor in carrying out this new agreement, which on the part of capital will be represented for Mitten Management by T. E. Mitten's son, who has now assumed the chairmanship of Philadelphia Rapid Transit here and also of I. R. C. at Buffalo.

Sleeping-Car Conductors

AN AGREEMENT between the Pullman Co. and the Order of Sleeping Car Conductors, made July 22, 1927, to arbitrate a wage controversy between them was abrogated March 1, 1928, by the making of an agreement between the parties, effective for one year from September 1, 1927, and thereafter "subject to 30 days' written notice by or to the Pullman Co." The rules and working conditions established by the United States Railroad Labor Board in Decision

No. 2052 were continued in effect. The wages were based on years of service, as follows:

	Rate per month	Rate per hour (cents)
First year	$160	66. 67
Over 1 year to 2 years	170	70. 83
Over 2 years to 5 years	177	73. 96
Over 5 years to 10 years	185	77. 08
Over 10 years to 15 years	188	78. 33
Over 15 years	193	80. 42

Awards and Decisions

Mailers—St. Louis

AN ARBITRATION award was rendered February 9, 1928, by a local board of arbitration consisting of Munro Roberts and Joseph P. Jud representing St. Louis Mailers' Union No. 3, W. C. Houser and M. J. Lowenstein representing the St. Louis Newspaper Publishers' Association, with Judge Henry S. Caulfield as chairman.

The wage section of the agreement between the two parties had expired November 15, 1927, with the mailers asking for an increase in wages and the publishers asking for a reduction. The representatives of the two parties met and failed to settle the question and Judge Caulfield was called in, thus forming an arbitration board. After several hearings and a discussion of the questions involved, Judge Caulfield rendered an opinion from which the following extracts are taken. By the terms of the agreement the opinion of the chairman became the decision of the board.

The question for decision is the wage scale of the mailers, journeymen and apprentices, for the period from and including November 16, 1927, to and including November 15, 1928, or such date thereafter as the board may determine, not exceeding the life of the contract. The present scale was fixed by conciliation as of May 16, 1926. It was agreed to be effective until November 15, 1927, with the privilege to either party to reopen the contract as to wages on November 15, 1927, or on any November 15 thereafter during the period of the contract. It is agreed that the decision will be effective as of November 16, 1927. The mailers ask for an increase of $1.18 per day or night, or $7.08 per week for the journeymen and an increase for the apprentices. The publishers ask for a decrease of $3.20 a week for journeymen and a proportionate decrease for apprentices. The parties assume that the apprentices should abide the fortunes of the journeymen and have confined their discussion to the latter, so the board will follow the same course.

No fraud or duress or untoward circumstances have been suggested to overcome the fair presumption that from time to time as the subject of wages was thus broached and decided all circumstances bearing on the subject were fully considered and given due weight, and that the wage scale was fairly fixed in accordance with them. Moreover, if no changes substantially affecting the situation have occurred since the scale was last fixed, it is fair to presume that that scale is right. No increase in the cost of living since June 11, 1926, is shown by the evidence. To the contrary, the Monthly Labor Review, August, 1927 (p. 202), shows a general decrease in the cost of living in the United States between December, 1925, and June, 1927, of 2.52 per cent, while the same publication (p. 214) shows a decrease in the cost of living in St. Louis from December, 1926, to June, 1927, of 1 per cent. The Monthly Labor Review, December, 1927 (pp. 176 and 191), shows a decrease in retail cost of food in St. Louis, October, 1927, compared with October, 1926, of 2.8 per cent.

On this basis, I repeat, the wage has increased 123 per cent while the cost of living has increased about 70 per cent. We are not justified in holding that the increase in the wage scale since 1914 has not been commensurate with the increase in the cost of living. And nothing has been shown to us which would justify us in holding that the substantial excess of increase in the wage scale over the

increase in cost of living is not reasonably sufficient to cover the changed standard of living since 1914.

The mailers claim that the St. Louis newspapers have shared in a general prosperity which has continued since 1914, especially in the years 1919 to 1926, inclusive. (It will be noted that they do not claim that the prosperity existed in 1927, since the present wage scale was agreed upon.) The financial condition of the business should be and is usually given some consideration, but it is not to be regarded as controlling, at least not so controlling as the comparative cost and standard of living. Be that as it may be, there is no showing that the business of the publishers has prospered out of proportion to the increase in wages over the same period.

A showing is made that advertising rates have increased, as well as the volume of advertising, and the price of the paper. It is common knowledge that the cost of print paper, ink, supplies, wages, and salaries have also increased. But whether and to what extent the increased revenues have exceeded the increased costs is not shown, nor was there any attempt to make such a showing. Surely, if wages are to go up and down according to the prosperity of the business, then such increase or decrease should depend, not upon the increase or decrease of gross receipts, but upon the net profits or losses.

The evidence shows that the present scale of wages for mailers in St. Louis compares fairly with the wages of the mailers in other cities reasonably comparable with St. Louis. Indeed, the wages paid here to mailers rank close to the highest in the United States. Wages in St. Louis should bear some reasonable relation to those established in other comparable territory, otherwise the industry will suffer. Moreover, that level of wages which exists throughout the country is entitled to some presumption of fairness. That the St. Louis scale is at least substantially as good as in other comparable cities is evidence that the St. Louis scale is fair.

The foregoing necessarily leads to the conclusion that the demand of the mailers for an increase should be denied.

The reduction demanded by the publishers should also be denied. While there has been a falling off of revenue in 1927, and the immediate prospects for business are not as promising as they were when the present scale was established, there is no showing of what, if any, reduction of net profits has occurred. We find here the same obscurity that we found in considering the mailers' contention that the industry had prospered. And while there has been some reduction in the cost of living since the present wage scale was fixed, it is comparatively slight, and not sufficient to justify any decrease in wages. In this connection it may be observed that while wages should not be increased now to make up for a deficiency in pay back in 1916 to 1919, nevertheless, when the publishers suggest a decrease it should be remembered, as a circumstance against haste, that during the period last mentioned the mailers were held to an obviously low wage. Then, too, it is to be reasonably assumed that the present slight lapse in business is but temporary, while the wages are being fixed for a year.

Railroad Telegraphers—Grand Central Terminal

AN ARBITRATION board, consisting of Daniel W. Dinan representing the company, L. P. Clifton representing the Railroad Telegraphers, and Walter C. Clephane appointed by the United States Board of Mediation, rendered a decision, March 9, 1928, in a dispute between the Order of Railroad Telegraphers and the Grand Central Terminal. The questions submitted to the board were two in number, as follows:

1. That the present hourly rates be increased 12 cents per hour.
2. That article 4 of the agreement (identified on the record as the agreement between the Grand Central Terminal and the Order of Railroad Telegraphers), effective as to rates of pay January 16, 1924, and as to the rules as of April 2, 1924 (which is filed herewith as a part of the record and marked "Joint Exhibit No. 1"), be changed to read: "Employees will be granted 66 days off each year with pay."

The board denied the first and granted the second, Mr. Dinan voting against the award. The board recommended rewriting article 4 of the agreement to make the award consistent with the rest of the article.

[1079]

IMMIGRATION AND EMIGRATION

Statistics of Immigration for February, 1928

By J. J. KUNNA, CHIEF STATISTICIAN U. S. BUREAU OF IMMIGRATION

THE statistics for February, 1928, show 31,281 aliens admitted to the United States, comprising 20,888 immigrants or newcomers for permanent residence in this country and 10,393 nonimmigrants or visitors. While this number is larger than that for the previous month, it is less than that for February, 1927, when 21,695 immigrant aliens entered the country. Of the principal sources of present-day immigration, Germany was the only country sending a larger number of immigrants in February, 1928, than during the same month of last year.

During February last 4,708 emigrant aliens left the United States with the intention of making their homes abroad again, over two-thirds (3,157) of the total going to Europe. Italy continues to receive the largest number of the aliens permanently departing, 1,929 going to that country; while 1,103 left for countries in the Western Hemisphere, and 448 to China, Japan, and the other countries.

The principal nationalities contributing immigrant aliens during February, 1928, were the German (4,635), Mexican (3,988), Irish (2,217), English (1,925), Scandinavian (Norwegians, Danes, and Swedes) (1,838), Scotch (1,425), Italian (1,177), French (840), and Hebrew (738). The men continue to outnumber the women among the new arrivals, 11,756 of the February immigrants being males and 9,132 females; and less than one-sixth of the total for the month were children, 2,992 of these immigrants being under 16 years of age; while 16,214 were in the prime of life, ranging in age from 16 to 44 years, and 1,682 were 45 years of age and over. Nearly two-thirds of the February immigrants were single, 13,363 being of this class; only 6,867 were recorded as married, and 658 as widowed and divorced.

While the men also outnumbered the women among the emigrant aliens leaving the country in February, 3,765 being males and 943 females, the vast majority of them were adults, only 346 giving their age as under 21 years. The married emigrants this month numbered 2,842, single 1,763, and widowed and divorced 103.

During the eight months ended February 29, 1928, a total of 329,145 aliens were admitted to the United States, compared to 348,342 for the same period a year ago. Notwithstanding the decrease in immigration this year, principally of quota immigrants from overseas and natives of nonquota countries, there was an increase of 57 per cent in the number of wives and children of American citizens. Of the latter class, 10,627 aliens were admitted from July 1, 1926, to Febru-

ary 28, 1927, as against 16,684 for the period July, 1927, to February, 1928.

The States which received more than 10,000 immigrants during the first eight months of the current fiscal year (July to February, inclusive) were New York, which leads, with 56,504; Texas, with 21,970; Michigan, 18,312; California, 16,610; Massachusetts, 14,257; Pennsylvania, 12,146; Illinois, 12,027; and New Jersey, 10,338. Over half of the newcomers during these eight months settled in the North Atlantic States.

Aliens debarred from entering the United States during the eight months from July to February last numbered 12,883, the majority of whom were rejected at the international land borders, 11,256 aliens being turned back to Canada and Mexico for various causes under the immigration laws, principally for failure to present proper visas. Aliens debarred at the seaports during the same period numbered 1,627, the greater part of these being also without visas.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1927, TO FEBRUARY 29, 1928

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens deported			United States citizens departed	Total	
	Immigrant	Nonimmigrant	Total				Emigrant [2]	Nonemigrant [2]	Total [2]			
1927												
July	23,420	15,973	39,393	29,935	69,328	2,002	9,230	18,509	27,739	65,686	93,425	700
August	28,418	19,011	47,429	57,701	105,130	1,574	6,322	17,014	23,336	43,039	66,375	1,346
September	31,000	25,619	56,619	75,557	132,176	1,600	7,625	16,885	24,510	39,748	64,258	901
October	31,719	21,578	53,297	50,254	103,551	1,567	6,402	16,424	22,826	24,396	47,222	932
November	27,758	13,841	41,599	24,325	65,924	1,723	5,871	16,886	22,757	22,612	45,369	1,030
December	22,350	10,452	32,802	18,922	51,724	1,679	9,085	21,418	30,503	25,209	55,712	999
1928												
January	18,146	8,579	26,725	19,909	46,634	1,348	5,323	15,632	20,955	27,126	48,081	808
February	20,888	10,393	31,281	31,941	63,222	1,390	4,708	10,070	14,778	34,810	49,588	933
Total	203,699	125,446	329,145	308,544	637,689	12,883	54,566	132,838	187,404	282,626	470,030	7,649

[1] Not included among inward numbers, as they were not permitted to enter the United States.
[2] Deported aliens are included among the emigrant or the nonemigrant aliens.

Migration of Philippine Labor to and from Hawaii

THE figures here presented, from the 1926 Report of the Governor General of the Philippines, show that in 1925 and 1926 the number of Filipino laborers going to the Territory of Hawaii decreased considerably as compared with 1922, 1923, and 1924, and that in 1926 a greater number of Filipino laborers returned from the Territory than in any of the four preceding years.

While in 1922 more than five times as many Filipino emigrants went to Hawaii as returned, in 1926 the number of such emigrants returning from the Territory was greater than the number who left the Philippines for that destination. The falling off in the number of Filipino laborers going to Hawaii is attributed to the existence there of sufficient laborers to meet the needs of the various plantations. A large number of Filipinos were found to be out of work in

Honolulu alone when the Philippine director of labor made his last tour of inspection in the Territory.

FILIPINO EMIGRANTS GOING TO AND RETURNING FROM HAWAII, 1922 TO 1926

Year	Going to Hawaii				Returning from Hawaii			
	Males	Females	Minors	Total	Males	Females	Minors	Total
1922	7,291	530	362	8,183	1,309	81	203	1,593
1923	4,520	1,797	944	7,261	1,226	112	158	1,496
1924	8,171	1,116	582	9,869	1,730	204	261	2,195
1925	6,104	256	159	6,519	2,183	264	307	2,754
1926	2,977	160	219	3,356	2,562	348	480	3,390
Total	29,063	3,859	2,266	35,188	9,010	1,009	1,409	11,428

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—— —— —— *Committee on Rules.*
Special rule is asked for convict labor bill (H. R. 8653). Constitutionality of measure is defended by chairman of labor committee [and others in hearings].
United States Daily, February 18, 1927, v. 1, No. 290, pp. 4299, 4307.

—— —— *Senate.*
Employment of Federal prisoners. Remarks of Hon. Hiram Bingham in the Senate of the United States, Monday, April 16, 1928. Editorial [by N. G. Osborn] from the New Haven (Conn.) Journal-Courier of Saturday, April 14, 1928.
Congressional record, April 16, 1928, v. 69 (current file), pp. 6819.

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Prison labor for State use. [By Senator Harry B. Hawes, replying to editorial of N. G. Osborn.]
Congressional Record, April 17, 1928, v. 69 (current file), pp. 6848–6850.

—— —— —— *Committee on Interstate Commerce.*
Convict labor. Hearings before the Committee ... on S. 1940, a bill to divest goods, wares, and merchandise manufactured, produced, or mined by convicts or prisoners of their interstate character in certain cases. February 7, 8, 9, and 17, 1928 ... Washington, 1928. 188 pp.
Testimony on the Hawes-Cooper bill, by Senators Bingham, Steiwer, and others.
Contains a brief by the National Committee on Prisons and Prison Labor.

—— —— —— —— Divesting prison-made products of their interstate character in certain cases ... Report. [To accompany S. 1940.] Washington, 1928 6 pp. (70th Cong., 1st sess., Senate Rept. 344.)

PUBLICATIONS RELATING TO LABOR

Official—United States

NEW YORK.—Department of Labor. Industrial Commissioner. *Report to Hon. Alfred E. Smith, Governor, on unemployment conditions in New York State, February, 1928. Albany, 1928. 17 pp.*

Reviewed on page 162 of this issue.

NORTH DAKOTA.—Coal Mine Inspection Department. *Ninth annual report [1926–27]. Bismarck, 1928. 38 pp.*

The report lists the coal mines of the State, by name and address, for each county, and includes data on days of operation, men employed, production, and fatal and nonfatal accidents.

PHILIPPINE ISLANDS.—Governor General. *Annual report, 1926. Washington, 1928. 276 pp. (U. S. H. Doc. No. 99, 70th Cong., 1st sess.)*

The present issue of the Review contains statistics, taken from this report, on industrial accidents (p. 73), industrial disputes (p. 110), adjustment of employees' wage and other claims against employers (p. 49), and migration of Philippine labor to and from Hawaii (p. 197).

TEXAS.—Bureau of Labor Statistics. *The Industrial Bulletin, Vol. 1, No. 2, February 1, 1928. Austin. 31 pp.*

The Bureau of Labor Statistics of Texas has begun the publication of a quarterly journal. The first issue which has come to the attention of this office is the number for February, 1928, listed above. It reviews briefly the work of the bureau for the period August 1, 1927, to January 31, 1928. The data include the results of the bureau's study of rest and recreation facilities and health promotion work for industrial employees. The survey covered 444 establishments, employing a total of 21,969 women and girls, in 34 cities and towns of the State. The industries represented were mercantile establishments, factories of all kinds, hotels and restaurants, hospitals, laundries and cleaning establishments, printing and publishing houses, bakeries, and miscellaneous industries. Detailed information was secured on drinking and washing facilities, toilet, lunch, rest, and cloak rooms, health service, recreation, and vacations. The bulletin also gives information on the bureau's survey of the wages, hours, and economic and social conditions of workers in the sawmill industry of eastern Texas.

UNITED STATES.—Congress. Senate. Committee on Interstate Commerce. *Conditions in the coal fields of Pennsylvania, West Virginia, and Ohio. Washington, 1928. 22 pp. (Committee print, 70th Cong., 1st sess.)*

—— Department of Commerce. Bureau of Mines. *Bulletin 229: Fifty-nine coal-mine fires—how they were fought and what they teach, by G. S. Rice and others. Washington, 1927. 156 pp.; diagrams, illustrations.*

—— —— —— *Bulletin 277: Safety in coal mining (a handbook), by George S. Rice. Washington, 1928. 141 pp.*

The purpose of this handbook is to make available in convenient form a concise statement of practices and methods recommended by the Bureau of Mines for

the increase of safety in coal mining. It covers explosions of gas or coal dust, falls of ground, haulage and other accidents, electric shocks, mine fires, and other topics.

UNITED STATES.—Department of Commeoce. Bureau of Mines. *Bulletin 287: Gases from blasting in tunnels and metal-mine drifts, by E. D. Gardner, S. P. Howell, and G. W. Jones. Washington, 1927. 96 pp.; diagrams.*

The Bureau of Mines is conducting investigations, in cooperation with mining companies of the Southwest, to ascertain the safest and most economical explosives for use in metal mines and to determine the best methods of blasting under various conditions. This bulletin describes the methods used and the results of the experiments conducted in five different mines, in which 99 rounds were fired and 376 samples of gases taken and analyzed.

—— —— Bureau of Navigation. *Merchant marine statistics, 1927. Washington, 1928. 75 pp.*

Wages of American and foreign seamen, taken from this report, are published on page 120 of this issue.

—— Department of Labor. *Recent court decisions affecting enforcement of immigration and naturalization laws. Washington, 1927. 63 pp. (Printed for use of Committee on Immigration and Naturalization, U. S. House of Representatives, 70th Cong., 1st sess.)*

—— —— Bureau of Labor Statistics. *Bulletin No. 456: Proceedings of the fourteenth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Atlanta, Ga., September 27–29, 1927. Washington, 1928. 257, xxvii pp.*

A short account of this meeting was published in the November, 1927, Labor Review (pp. 104–106).

—— —— —— *Bulletin No. 457: Union scales of wages and hours of labor, May 15, 1927. Washington, 1928. 233 pp.*

Advance data from this bulletin were published in the Labor Review for September, 1927 (pp. 112–135), and November, 1927 (pp. 1–8).

—— —— —— *Bulletin No. 458: Health and recreation activities in industrial establishments, 1926. Washington, 1928. 94 pp., illus.*

Several of the chapters in this bulletin were published in previous issues of the Review. A general summary of the bulletin is contained in the April number.

—— Government Printing Office. Superintendent of Documents. *Children's Bureau and other publications relating to children. List of publications relating to above subjects for sale by Superintendent of Documents, Washington, D. C. Washington, February, 1928. 14 pp. Price list 71–9th edition.*

Official—Foreign Countries

AUSTRALIA.—[Department of the Treasury. Pensions and Maternity Allowance Office.] *Invalid and old-age pensions. Statement for the 12 months ended June 30, 1927. Melbourne, 1927. 10 pp.*

The old-age pensions current on June 30, 1927, numbered 133,234, an increase of 6,316 over the number a year earlier, while the number of invalid pensions had increased by 3,596, and totaled 52,399. To each 10,000 of the population there were 218.04 old-age and 85.75 invalid pensioners. The average fortnightly rate of pensions was £1 18s. 3.27d. for the old, and £1 19s. 1.62d. for the invalids, and the annual liability for the two pension rolls combined, as of June 30, 1927, was £9,294,766. The cost of administration was £116,008, or £1 5s. 4d. for every £100 paid in allowances.

AUSTRALIA.—[Department of the Treasury. Pensions and Maternity Allowance Office.] *Maternity allowances. Statement showing number of claims granted and rejected, expenditure, and cost of administration during the 12 months ending June 30, 1927. Melbourne, 1927. 3 pp.*

During the year, 132,056 claims for maternity allowances were paid, and 1,122 were rejected. Over half (703) of these were disallowed because the mothers were aliens, and the next largest group, 129, were refused on the ground that the children were not capable of living. The total amount paid in allowances during the 12 months was £660,280, and the cost of administration was £16,181, which amounted to £2 1s. 6d. for every £100 paid in allowances.

—— Industrial delegation to investigate the method employed in, and the working conditions associated with, the manufacturing industries of the United States. *Report. Canberra [1927?]. 88 pp.*

Reviewed on page 50 of this issue.

—— (NEW SOUTH WALES).—Department of Labor and Industry. *Report on the working of the factories and shops act, 1912, during the year 1926. Sydney, 1928. 45 pp.*

Figures are given for the year ending December 31, 1926, showing that the number employed in factories rose from 138,687 at the close of the previous year to 151,622, although the number of registered factories decreased by 7. Of the total increase of 12,935 persons, 68.6 per cent were males and 31.4 per cent were females. The reported accidents numbered 910, of which 15 resulted fatally, 161 caused permanent injuries, and 734 temporary injuries.

BELGIUM.—Ministère de l'Industrie, du Travail et de la Prévoyance Sociale. *Commission nationale de la production industrielle—constitution, programme, rapport final et conclusions. Ghent, 1927. 90 pp.*

A report of the Belgian committee on industrial production, covering proposals for the legislative and reform measures to be followed in the scientific management of industry (rationalization) and outlining the steps which should be taken to safeguard the workers in their employment during the proposed industrial reorganization.

CANADA (NOVA SCOTIA).—Workmen's Compensation Board. *Report for 1927. Halifax, 1928. 38 pp.*

Information on workmen's compensation in the fishing and lumber industries, and on compensated industrial accidents in 1927, is given on pages 94 and 96 of this issue.

FINLAND.—[Socialministeriet.] Bureau Central de Statistique. *Annuaire statistique de Finlande, 1927. Helsingfors, 1927. 349 pp. (In Finnish and French.*

Contains statistics on various subjects for the year 1927, including accidents, emigration, employment agencies, strikes and lockouts, wages, etc.

GERMANY.—Reichsarbeitsministerium. *Ausführungsvorschriften zum gesetz über Arbeitsvermittlung und Arbeitslosenversicherung. Berlin, 1928. 276 pp. (42. Sonderheft zum Reichsarbeitsblatt.)*

Regulations for carrying out the law regarding agencies for employment and insurance against unemployment.

—— —— Reichsarbeitsverwaltung. *Jahrbuch der Berufsverbände im Deutschen Reiche, 1927. Berlin, 1927. 29*, 184 pp.; charts. (36. Sonderheft zum Reichsarbeitsblatt.)*

Yearbook for 1927 of the German trade-unions and employers' associations.

GREAT BRITAIN.—Industrial Court. *Awards 1,273 to 1,354, January 1, 1927, to December 31, 1927. Vol. IX. London, 1928. xxx, 589 pp.*

GREAT BRITAIN.—Mines Department. *Miners' Welfare Fund. Sixth report of the committee appointed to allocate the fund, together with the first report of the selection committee appointed to administer the Miners' Welfare National Scholarship Scheme, 1927. London, 1928. 91 pp.; plans, illustrations.*

Some data from the report of the selection committee will be found on page 102 of this issue.

—— Ministry of Labor. *Summary of unemployment insurance acts, 1920–1927. London, 1928. 16 pp. (Cmd. 3035.)*

Reviewed on page 90 of this issue.

—— Registrar General. *Decennial supplement, England and Wales, 1921. Part II—Occupational mortality, fertility, and infant mortality. London, 1927. cxxxix, 138 pp.*

Data on fertility and infant mortality, taken from this report, are given on page 75 of this issue.

—— (LONDON).—London County Council. *Housing: With particular reference to postwar housing schemes. London, 1928. 193 pp.; map, plans, illustrations.*

In 1900 and again in 1913, the council published accounts of the housing problems of London and of the work done in clearing away slum areas and in putting up and managing sanitary dwelling places of various kinds. The present volume continues the history, but is devoted especially to the work done since the close of the war.

"In the period since the end of the war, the council has erected 22,600 houses and flats containing 86,000 rooms, in which it is estimated that over 100,000 persons have been provided with accommodation. In addition, schemes are in progress or are projected which will permit of the addition of 30,000 houses and flats capable of accommodating another 135,000 persons."

The volume contains full details as to the cost of the various schemes, methods of building and of management, development of areas, and the like.

HUNGARY (BUDAPEST).—Kommunal-Statistisches Amt. *Statistisch-Administratives Jahrbuch der Haupt- und Residenzstadt Budapest, 1927. Budapest, 1927. [Various paging.] In Hungarian and German.*

A table of weekly wages in specified occupations in the principal industries of Budapest in 1914 and 1926 is given on page 125 of this issue.

INTERNATIONAL LABOR OFFICE.—*International Labor Conference, eleventh session, Geneva, May, 1928. Report on minimum wage-fixing machinery. (First item on the agenda.) Geneva, 1928. 149 pp.*

Contains the replies of various Governments to the questionnaire on minimum wage-fixing machinery, prepared for use in the second discussion of this subject by the International Labor Conference at its eleventh session. The first discussion took place at the tenth session.

ITALY.—Istituto Centrale di Statistica del Regno d'Italia. *Annuario statistico Italiano, 1927. Rome, 1927. 389 pp.*

Statistical yearbook for 1927 on administration, commerce, and industry.

JAPAN.—Department of Finance. *The 27th financial and economic annual of Japan. Tokyo, 1927. 228 pp.; charts.*

Includes tables giving number of workers, by industries, 1925; average daily wages of laborers and index numbers of wages, 1921 to 1926, and production in chief manufacturing industries in different years, 1914 to 1925. Statistics on coal mine production, taken from this report, are published on page 44 of this issue.

URUGUAY.—Ministerio de Industrias. *El salario real (1914–1926). Montevideo, 1927. 69 pp.*

A study of the movement of real wages in Uruguay from 1914 to 1926. Figures from the report are given on page 128 of this issue.

Unofficial

ALLGEMEINER DEUTSCHER GEWERKSHAFTSBUND. *Jahrbuch, 1926. Berlin, 1927. 230 pp.*

A yearbook issued by the General Federation of Trade-Unions discussing economic tendencies in general, and those affecting labor, for the year 1926.

AMERICAN ENGINEERING COUNCIL. *Safety and production. New York, Harper & Bros., 1928. 414 pp.; charts.*

Reviewed on page 70 of this issue.

ANDERSON, ADELAIDE MARY. *Humanity and labor in China—an industrial visit and its sequel (1923 to 1926). London, Student Christian Movement, 1928. 285 pp., illus.*

Gives the author's experiences in the movement to improve the conditions of factory workers in China.

BEMAN, LAMAR T., Compiler. *Five-day week. New York, H. W. Wilson Co., 1928. 150 pp. (The reference shelf, Vol. V, No. 5.)*

The book contains affirmative and negative briefs for the five-day week; a bibliography of general, affirmative, and negative references; a general discussion of the five-day week and the extent to which it exists, with opinions regarding it; and affirmative and negative discussions of the subject.

CALIFORNIA, UNIVERSITY OF. Heller Committee for Research in Social Economics. *The dependent aged in San Francisco. Berkeley, Calif., 1928. 127 pp. (University of California publications in economics, vol. 5, No. 1.)*

A study undertaken to discover the situation of the aged dependents with special reference to the extent of the problem they present, the kinds of aged persons needing care, and the methods used for meeting their necessities. San Francisco County gives no relief to the aged except in the form of institutional care, so that private philanthropy has to provide for all who do not properly belong in institutions. About 6 per cent of the population aged 60 and over were either in public or private institutions, or receiving help outside of institutions from private sources. San Francisco spent approximately $300 per capita for its aged poor in 1925, when all classes of relief work are included. "The outrelief agencies spent on the average about $150 a year for each aged client, an amount which all agree is too small." The disadvantages of the refusal of all public outrelief are emphasized, and the probable cost of a public pension system is discussed.

CARR-SAUNDERS, A. M., and JONES, D. CARADOG. *A survey of the social structure of England and Wales. London, Oxford University Press, 1927. 246 pp.; charts.*

The authors aim to present a coherent picture of some of the important aspects of social life in England and Wales, so far as they can be illustrated by statistics.

COMITÉ CENTRAL DES ALLOCATIONS FAMILIALES. *Annuaire, 1926–27. Paris [1927?]. 604 pp.*

The subjects dealt with in this annual include the central committee of family allowances (its regulations, its affiliated funds, and its annual congresses); the administration, benefits, and regulations of funds for family allowances; sick-benefit funds and services; the juridical character of family allowances, with legal opinions, decisions, and decrees concerning such grants; and legislation for the protection of the family.

CONSUMERS' LEAGUE OF NEW YORK. *Behind the scenes in candy factories. New York, 289 Fourth Avenue, 1928. 67 pp.; chart, illustrations.*

Some of the conditions disclosed by this survey are described on page 46 of this issue.

INTERNATIONAL ASSOCIATION FOR SOCIAL PROGRESS (BRITISH SECTION). *Memorandum on unemployment insurance in Great Britain. London, 1927. 14 pp.*

A short account of the findings of this memorandum is given on page 92 of this issue.

—— *Report on hours of work and their relation to output. London, 1927. 10 pp.*

A summary of British experience with length of working-day as related to output during the war, and of the studies of the Industrial Fatigue Research Board as to postwar conditions. There has been a general tendency toward a reduction of hours in industry, and it is doubtful whether stability has yet been reached. In general, a reduction in hours produces a favorable effect upon output as does also the introduction of rest pauses. The effect of the latter is best shown by workers employed on hand processes. The more their work is dependent upon machinery, the less they can compensate by increased speed for the loss of working time entailed by a shorter day or by the introduction of rest periods.

—— *Report on maternity insurance. London, 1927. 13 pp.*

The report gives a brief account of the English social services bearing on maternity, whether supported by the State, by the local authorities, or by a system of insurance to which the State, the employers, and the employed alike contribute, and follows this by a summary of the proposals respecting maternity insurance put forward at the International Labor Conference held in Washington in 1919, and of the report of the royal commission on national health insurance, issued in 1926.

—— *Report on the effects upon labor of modern industrial developments. London, 1927. 18 pp.*

The report summarizes answers to a questionnaire given by 16 large firms selected as being likely to represent the best modern industrial methods. The consensus of opinion was that increased use of machinery, time and motion studies, standardization, and the like, do not tend to decrease employment nor lead to longer hours of work. Wage rates may be lowered through these methods but earnings tend to increase. Labor may, however, suffer through overwork, by fatigue due to increased intensity of work, and by monotony and lack of interest. This effect may be lessened or entirely avoided by giving the employees a share in the functions of management, at least so far as the general policies of industrial management are concerned, by works councils established for joint discussion between managers and workers.

LAIDLER, HARRY W., AND THOMAS, NORMAN. *Prosperity? New York, Vanguard Press, 1927. 286 pp.*

A symposium on the economic, political, and educational aspects of American prosperity. It includes sections on prosperity and a trade-union program; prosperity and the wants of the workers; prosperity and labor politics; and some problems of workers' education.

MARTELLI, EVELYN. *A signpost to social insurance. London, P. S. King & Son (Ltd.), 1927. 87 pp. (Signpost series No. 2.)*

A brief and convenient summary of the various forms of social insurance now in force in Great Britain, giving for each the conditions under which persons may enter insurance, conditions for receiving benefits, the costs and the amount of benefit received, the relation of the different schemes to one another, and the method of administration. Suggestions are made as to the lines along which improvements should be attempted, and a brief bibliography is appended.

MILLS, FREDERICK C. *The behavior of prices. New York, National Bureau of Economic Research (Inc.), 1927. 598 pp.; charts.*

This volume is notable for its emphasis on the behavior of individual commodity prices. Detailed tables contain measures of the range of fluctuations in individual prices and of long-time price trends. Changes in individual commodity prices are compared with movements of interest rates and of various indexes of general business conditions. The treatment of specific commodities is followed by sections dealing with the economic import of general price movements and of price relations. A foreword to the volume, prepared by Edwin F. Gay and Wesley C. Mitchell, directors of research, states that "this undertaking more decidedly than its predecessors opens new paths. On such a scale, it is the pioneer effort to explore with all available statistical instruments the recesses of the labyrinth of prices." It is explained that the materials assembled in the present volume will be used with other data in a later study in seeking to define certain of the component elements of the price system, and in attempting to trace relations between these elements.

NATIONAL CIVIC FEDERATION. Industrial Welfare Department. *Extent of old-age dependency. New York, 33d Floor, Metropolitan Tower, 1928. 158 pp.*

A short review of the findings of this study is given on page 76.

PANAMA CANAL RETIREMENT ASSOCIATION. *The canal diggers in Panama, 1904 to 1928. Balboa Heights, Canal Zone, 1928. 67 pp.; map, illustrations.*

The pamphlet contains a brief outline history of the construction period of the Panama Canal, data regarding the workers employed since 1904, and a discussion of the health, economic, and political conditions in the Canal Zone, with a plea for a retirement system for the canal employees. A copy of the bill introduced in the United States House of Representatives December 12, 1927, providing for the retirement of these employees and certain other American workers in Panama is appended.